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AUTHOR Gradous, B. Deane
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ABSTRACT

The purpose of this study was to develop and validate a transfer-of-training model and a method for applying it. A literature review investigated the theory and practice of transfer of training. In the first phase of the research, a transfer-of-training model was developed using the principles of general systems theory, the various steps of a systematic training model, and the best practices of adult education theory. The result was a two-axis open-systems model involving three key players--trainer, manager, and participant--over three time periods--before, during, and after training. To assist the key players in implementing the transfer-of-training model, three checklists of transfer strategies conforming to the major elements of the model were also developed. The second phase of the study consisted of asking experts in the field of training to validate the transfer-of-training model and the checklists. Five training experts and two professional groups critiqued them, suggested minor changes to the model, and added several strategies to the checklists. They also confirmed the face and content validities of the model and the checklists, which together comprise the transfer-of-training system. The third phase consisted of a limited application of the transfer-of-training system in a government agency. The application resulted in several modifications to an ongoing training program. (Appendixes include 87 references, interview protocol for model validation, suggested modifications to checklists, trainer and participant checklists, and evaluation form.) (Author/YLB)

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THE DEVELOPMENT AND VALIDATION OF A TRANSFER-OF-TRAINING SYSTEM

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TABLE OF CONTENTS

Page

List of Figures v

Abstract vi

Chapters

I. THE PROBLEM 1

- Statement of the Problem 3
- Significance of the Problem 3
- Limitations of the Problem 5
- Purpose of the study 6
- Definition of terms for the study 6
- Summary 11

II. REVIEW OF THE LITERATURE 12

- Need for Training in Classroom Settings 12
- Generic Training Programs and Transfer 12
- Barriers to Transfer 15
  - Barriers Due to an Unprepared Environment 19
  - Barriers Due to the Trainer's Approach 22
  - Barriers Due to Participants' Attitudes and Perceptions 25
  - Barriers Due to Improper Timing 26
- Responsibilities for Transfer of Training 27
  - Trainers' Responsibilities 28
  - Managers' Responsibilities 29
  - Participants' Responsibilities 30

Transfer As a Shared Responsibility 30
Summary 32
III. DEVELOPING A TRANSFER-OF-TRAINING SYSTEM: METHOD AND RESULTS 33
Developing a Conceptual Model for Transfer of Training 34
A Classification Model of Transfer Strategies 34
Need for a Systemic Approach 35
General Systems Theory 36
Characteristics of Open Systems Models 40
First Draft of a Systems Model for Transfer of Training 45
Adding Responsibilities of Key Players to the Model 46
Result: A Dynamic Transfer-of-Training Model 52
Developing the Three Checklists 54
Result: Three Checklists of Transfer Strategies 55
Summary 56
IV. VALIDATING THE SYSTEM: METHOD AND RESULTS 59
Expert Validation of the Transfer-of-Training System 59
Results 63
Improvements to the System by Individual Experts 63
Group Validation: National Society for Performance and Instruction 66
Group Validation: The Pennsylvania State University 67
Summary 67
V. APPLYING THE TRANSFER-OF-TRAINING SYSTEM: METHOD AND RESULTS 69

Finding an Organization 70
Log of Critical Decisions 70
Results 85
Assessing Supervisory Support of DMS Refresher Training 86
Assessing Transfer to the Job without and with the Transfer-of-Training System 87
Assessing the Results of DMS Refresher Training 88
Assessing Trainer Response to the Transfer-of-Training System 89
Assessing the Usefulness of the Transfer-of-Training System 90
Summary 93
VI. SUMMARY AND CONCLUSIONS 94
Conclusions 95
Review of the Literature 95
Developing the Model 96
Developing the Checklists 97
Validating the Model and the Checklists 97
Using the System in an Ongoing Organization 98
Recommendation for Practice 99
Recommendations for Further Research 101
References 104
Appendices 113
Appendix A: Interview Protocol for Validating the System 114
Appendix B: Changes Suggested by the Expert Reviewers 120

Appendix C: Transfer-of-Training Checklists 131

Appendix D: Training Memo to Supervisors, Training Training Information Sheet to Participants, and Transfer-of-Training Performance Record 151

LIST OF FIGURES

Figures | Page

Figure 1. A role-taker/time-differentiated integration of transfer strategies 29

Figure 2. Systems model of a training program in an organization 38

Figure 3. Systems model for transfer of training, responsibilities unspecified 39

Figure 4. Conceptual model for assuring transfer of training 47

Figure 5. Example page from the trainer's checklist 55

ABSTRACT

On-the-job application of skills and knowledge learned in a classroom setting has long been a concern of trainers and business decision makers. The topic of transfer of training is becoming even more important in the new era of global economics. As U.S. firms strive to become world-class competitors, managers are allocating more resources to off-site training, and they expect higher job performance following that training.

The topic of this investigation was the development and validation of a new tool for training, the Transfer-of-Training System. The research was divided into three phases. In the first phase, a transfer-of-training model was developed using the principles of general systems theory, the various steps of a systematic training model, and the best practices of adult education theory. The result was a two-axis open-systems model involving three key players—trainer, manager, and participant—over three time periods—before, during, and after training. To assist the key players in implementing the transfer-of-training model, three checklists of transfer strategies conforming to the major elements of the model were also developed.

The second phase of the research consisted of asking experts in the field of training to validate the transfer-of-training model and the checklists. Five training experts and two professional groups critiqued both the model and the checklists. They suggested minor changes to the model and added several strategies to the checklists. They also confirmed the face and content validities of the model and the checklists, which together comprise the transfer-of-training system.

The third phase of the research consisted of a limited application of the transfer-of-training system in a government agency. The application resulted in the training staff's making several modifications to an ongoing training program. Qualitative findings from this study suggest that the transfer-of-training system is a useful aid to decision makers when planning performance-based training.

CHAPTER I

THE PROBLEM

This study focused on developing a means to enhance the transfer of newly learned knowledge and skills from the training setting to the job setting.

Decision makers who allocate organization resources to training programs expect the participants in those programs to learn new knowledge and skills in the training program and to apply their new knowledge and skills on the job. Decision makers also expect that the use of new knowledge and skills on the job will lead to improved work performance, which will then pay off in organizational results. But the mere act of teaching new knowledge and skills to participants in a classroom setting is rarely a sufficient means to improve an individual's work performance. To assure transfer of training, trainers must apply specific methods, strategies, and techniques to assist participants and their managers in the important process of transferring new skills and knowledge from the training setting to the work setting (Goldstein, 1986; Wexley & Latham, 1981).

The professional literature for trainers is liberally sprinkled with materials telling trainers that they ought to be more concerned with the challenge of improving transfer of training. Youker (1965) emphasized both the importance and the difficulty of this challenge:

"In job-related training, learning transfer isn't just an issue, it is *the* issue" (p. 54).

Training experts, in the 1980s, expressed their concern with the magnitude and the difficulty of the challenge of assuring transfer of training. Hoffman (1983) reported that according to some observers, as little as 10 percent of expenditures on training pay off in actual behavior change on the job (p. 34). The members of the Duluth, Minnesota, chapter of the American Society for Training and Development estimated that only 40 percent of training transferred immediately and that a negligible 25 percent transferred after a six-month delay in application (Newstrom, 1986). According to the same group, only 15 percent of training transferred after one year, a figure that came close to Hoffman's finding.

The reasons for lack of transfer of training are many. For example, poor needs assessments can result in misguided training; participants may lack opportunities to apply the new skills on the job, and participants' managers may not require or reward changes in job behaviors and performance (Baldwin & Ford, 1988; Sisson & Swanson, 1990).

Whatever the reason, training that is not followed by application of the knowledge and skills on the job does not make the best use of organization resources and may be a potential source of frustration for participants and their managers. Furthermore, when transfer does not occur following a training program that was aimed at solving a performance problem, the organization is left in an even worse position. Not only does the original performance problem still exist, but a considerable quantity of organization resources have been unproductively consumed. If formal training in business and industry is to remain a viable solution to organization performance problems, it must be perceived as an effective resource for helping individuals meet their performance goals and the organization meet its strategic goals (Swanson & Gradous, 1988). In the long run, transfer of training is a survival issue for training professionals.

Statement of the Problem

In spite of the many pages of literature that training experts have devoted to discussing transfer-of-training issues, very little research on the topic has been undertaken (Baldwin & Ford, 1988). A review of the literature yielded a wide assortment of methods, strategies, and techniques for encouraging transfer of training but no theoretical model that was sufficiently complete to function as a guide for trainers and researchers who are interested in planning for transfer following training. Training professionals apparently lack a comprehensive system—a model and action strategies—to help them cope effectively with the transfer-of-training challenge in complex organizations.

Significance of the Problem

In 1989, the U.S. Department of Labor and the American Society for Training and Development examined the extent of employer-provided training in the United States. They surveyed 131,189 organizations with 100 employees or more and found that 35.6 million people received 1.2 billion hours of formal training during the year (Geber, 1989). Videotapes, lectures, role plays, slides, films, case studies, games, and simulations were popular methods of formal training—which is conducted primarily in classroom or conference settings (Geber, 1989, p. 55).

In 1990, Training magazine mailed questionnaires to 12,000 organizations that had been culled from Dun & Bradstreet's directory of U.S. businesses and from their own list of subscribers. Twenty-two percent of the questionnaires were returned. Survey findings showed that most corporate training budgets for 1990 remained the same or increased compared with 1989 and that an estimated total of $45.5 billion in direct costs will be expended on training in U.S. businesses in 1990 (Geber, 1990, p. 40). This sum, which does not include the cost of trainee hours, will be allocated among a variety of personnel: salespeople, professionals, first-line supervisors, middle managers, customer-service people, executives, senior managers, production workers, and office/administrative employees. Salespeople, at 40 hours during the year, will receive the most training per individual, and office/administrative workers, at 19 hours, will receive the least training per individual (Gordon, 1990, p. 52). Production workers as a group, by virtue of their large numbers, will receive the greatest total number of hours of training. Training's estimate of a large amount of training for production workers seems to "jibe with the 'total quality' rhetoric espoused by increasing numbers of companies" (p.53). Altogether, Training estimates that one-third of the members of the U.S. work force will receive training from their employers this year and that this training will be directed primarily toward technological change, customer service, and quality improvement—all of which are aimed at increasing the effectiveness of U.S. businesses.

Limitations of the Problem

This study is limited to the problem of managing transfer following classroom or off-site training. Transfer of training is not so large a challenge for on-the-job trainers because the training and the work generally occur simultaneously. Transfer of training may or may not be a challenge for technical trainers, because newly learned technical skills are often prompted or required by the tools and the procedures in the work place. On the other hand, transfer of training is a serious challenge for the trainer in the case of formal, off-site classroom training in such essential skills as communicating with one's peers, superiors, and subordinates or making effective decisions or solving technical and human performance problems. The need to improve transfer following classroom-based training is great, but the opportunity to do real-world research on ways to fill this need is not widely available for two reasons: (a) trainers, who are unable to assure themselves of the cooperation of participants and participants' managers, are reluctant to take on the issue of measuring transfer and (b) purchasers of classroom training, who do not allocate separate funds for evaluation, are not likely to insist on measuring transfer of training.

Purpose of the Study

The purpose of the study is to develop and validate a transfer-of-training model and a method for applying it. Both could be used by trainers, training participants, and managers to communicate the need for and to plan for transferring new knowledge and skills from the training setting to the job setting. Three research questions address the problem:

1. Can a transfer-of-training system be developed from the literature?
2. Can the system be validated by experts in the field of training?
3. Is the system a useful decision-making aid for considering transfer-of-training issues in an organization?

Definition of Terms for the Study

Generalization, or the transfer of learned behaviors to new, higher-level or more complex learning, was treated in the educational literature as a "passive phenomenon" (Stokes & Baer, 1977, p. 349). That is, the possibility of using or the requirement of applying new learning in new settings was not often taught to the learner along with the skill being taught. Generalization was simply supposed to happen whenever a stimulus in another setting closely matched the stimulus that had been associated with the new behavior in the learning setting. Stokes and Bear (1977), who were interested in teaching learners how to generalize to other settings the new behaviors they had learned in therapeutic settings, searched the literature of learning to discover how to program such generalization. Stokes and Baer defined generalization as "the occurrence of relevant behavior under different, non-training conditions (i.e., across subjects, settings, people, behavior, and/or time) without the scheduling of the same events in those conditions as had been scheduled in the training conditions" (p. 350). Their definition implied that learners ought to use their new behaviors in new settings without the need to manipulate the situations in order to stimulate the behavior. Stokes and Bear classified 120 studies, or what they called the "core" of 270 studies on the subject of behavior generalization, into 7 headings:

1. Train and hope
2. Sequential modification
3. Introduce to natural maintaining contingencies
4. Train sufficient exemplars
5. Train loosely
6. Use indiscriminable contingencies
7. Program common stimuli (p. 350)

The researchers concluded that these core studies, most of which were published in the period between 1970 and 1977, constituted an embryonic technology of generalization programming:

> Within common teaching practice, there is an informal germ of a technology for generalization. Furthermore, within the practice of applied behavior analysis (especially within the past 5 years or so), there has appeared a budding area of "generalization promotion" techniques. (p. 350)

Stokes and Baer concluded that generalization did not have to be the passive activity that educators had assumed. Instead, teachers and therapists could use certain techniques to promote generalization of new learnings to other settings. As the result of this study, Stokes and Baer were the first to offer an organized list of techniques to use in the training setting to promote transfer of newly learned knowledge and skills to other settings. Generalization, as Stokes and Bear defined the term, appears to be similar to (a) "transfer of learning," or the "degree to which the individual uses the knowledge and skills learned during the training on the job in an effective and continuous manner" (Georgenson, 1982, p.75) and (b) "transfer of training," as it is defined in the literature (see below).

System is the "structure or organization of an orderly whole, clearly showing the interrelationship of the parts to each other and to the whole itself" (Silver, 1971, p. 20).

Training is "a planned effort by an organization to facilitate the learning of job-related behavior on the part of its employees" (Wexley, 1984, p. 31). Campbell & Campbell & Associates (1988) defined training as "a formal attempt to teach knowledge, skills, and task understanding" (p. 178). Yoder (1977) defined training as the "facilitation of learning" (p. 5-5). All the foregoing definitions are incomplete for the purposes of this research because they do not include the transfer of newly learned skills to the job. Hinrich's (1983) definition of training comes closer: "Training is a systematic, intentional process of altering behavior of organizational members in a direction which contributes to organizational effectiveness" (p. 832).

Formal training is a training event that takes place away from the work site. A subject-matter expert, a trainer, or a facilitator assures that the planned training activities are covered during the time that trainer and participants are together. Such a training event may be called a program, workshop, presentation, course, or seminar.

Generic training is a label given to training programs that are developed and delivered by subject-matter experts. Generic training focuses on developing the general knowledge and skills required across job classifications or job levels. For example, because many managers appear to lack business-writing skills, experts on business writing have created and sold a large number of writing programs to corporate trainers for subsequent delivery to managers. Many organizations that offer generic courses waive the needs-assessment phase.

Learning is a "process by which an individual's pattern of behavior is changed by experience--for our purposes, the catalytic experience of exposure to the training activity" (Hinrichs, 1983, p. 832). Kyllonen & Alluisi (1987) have a simpler definition of learning: "First, learning can occur without changing performance. Second, practice is not necessary for learning to occur. Social learning theory has provided numerous demonstrations that we can learn solely through observation or simply by being told. Learning today simply means 'change'" (p. 125). A change in knowledge or skills (learning) may be achieved in a classroom setting and not demonstrated until the opportunity to act presents itself on the job. This definition implies that supervisors must ask participants to apply their new learning on the job. It also implies that the lack of opportunity to demonstrate new knowledge and skills could lead training evaluators to the belief that participants had not acquired transferrable skills during training.

Transfer of training is similar to generalization and transfer of learning. According to Miller (1976), transfer of training is the process of generalizing from what behaviors are effective in the training setting to what behaviors are effective in the work setting. Zemke and Gunkler (1985) define transfer of training as "the effects of training on the subsequent performance of an operational task" (p. 49). This researcher views the term from a more active frame of reference. For purposes of this study, "transfer of training" is everything managers, trainers, and participants do to assure that what is learned in the formal training setting can be and is applied to improve performance in the work setting.

Transfer failure occurs when "trainees go back to work and do it the way they've always done it instead of the way you taught them to do it" (Clark, 1986, p.83). Zero transfer is another term given to transfer failure (Camp, Blanchard, & Huszczo, 1986).

Negative transfer occurs when transfer has a negative effect on performance in the work setting. For example, participants may try to apply the new skills to inappropriate tasks, thus lowering productivity (Camp, Blanchard, & Huszczo, 1986).

Summary

This chapter developed the need for the study and the significance of the problem. Three research questions were posed and critical terms were defined. Chapter II is a review of the relevant literature.

CHAPTER II

REVIEW OF THE LITERATURE

This review investigates the theory and practice of transfer of training as reported in the literature. For purposes of the review, transfer of training is deemed to have occurred when a training participant applies in the work setting the knowledge and skills that he or she learned in a training setting, usually classroom. Transfer of training implies appropriate and successful use of the new learning on a continuing basis or as called for in the work setting.

Need for Training in Classroom Settings

In the past, most classroom-type training was offered primarily to managers, but this condition has changed in recent years. Zielinski (1989) has seen the line between technical training and management training increasingly blur as the use of technological skills advances among managers (e.g., managers learning to use computers) and as the use of interpersonal skills increases among technical workers (e.g., team members learning communication and problem-solving skills and service workers learning how to defuse customer anger).

Generic Training Programs and Transfer

Upon finding what appear to be straightforward, uncomplicated training needs, many trainers call on outside experts to provide the needed training. However, more than one authority on training has expressed concern about the widespread practice of hiring outside experts to assist with training. Kelly (1982) may have exaggerated a little when she surmised that sometime in the 1970s "most corporate training and development staff people became little more than conduits of profit for publishers of training and development materials, for professors, and for thousands who became a new breed of full-time consultants" (p. 105). Livingston (1983) claimed that although packaged [generic] training can do a reasonably good job of providing new awarenesses, stimulating workers' thinking, and presenting new concepts, it cannot provide the means to assure that participants in such training will apply their new learning to achieve organizational objectives.

Recently, Dixon (1989) suggested that corporate trainers, who often have little power in the organization hierarchy, might be using packaged training to avoid either the need to "bother" managers with time-consuming needs assessments or the problems of designing challenging training. Dixon also claimed that many trainers hesitated to plan, design, and deliver training for the purpose of changing the work behaviors of managers who rank higher than they—as if challenging their superiors were a bigger risk than most trainers were prepared to undertake. Thus, the task of changing the thinking and the behaviors of employees at all levels is often left to external suppliers of packaged training, whose primary interest is to sell the programs they have developed. Sincere though external trainers may be in their desire to provide effective training, the needs analyses they conduct must necessarily be quite superficial because they lack access to potential trainees and their managers. As a consequence, the skills taught in such generic training programs may not fit the organization's culture and may not be appropriately applied in the job setting. Lee (1989) makes this point by quoting a well-known training expert:

> Joe Harless calls generic training 'content free.' That is, it's not built around what leaders in your company must accomplish and what they do to produce those accomplishments in a particular context. Training that is generalized transfers to the real world only generally. 'Study after study shows that you get unpredictable transfer in sheep-dip courses,' he says. 'There's nothing wrong with that kind of training,' he adds, 'as long as you don't expect it to transfer predictably.' (p. 21)

In addition to uncertain transfer, implementing such "sheep-dip" courses may actually damage the image of the corporate trainer. Robinson & Robinson (1989) assert that whenever "activity training"—which is what they call all nonspecific, undifferentiated training—fails to produce changes in job performance, line managers are apt to run out of patience with training's failures.

By many measures, training programs can be and are declared to be successful. On end-of-course evaluation forms, participants usually give trainers high marks. Scores on in-class knowledge tests may show that participants have learned the content. In-class performance tests may show that participants have mastered the new behaviors. But in the end, line managers will give participants and trainers low marks if they see few new behaviors on the job. Decision makers and trainers alike are beginning to realize that training that does not transfer to the job produces only costs to individual participants and to their organizations.

Transfer from generic programs is always expected, otherwise why offer them? But few such programs effectively address the problem of transfer of training (Miles & Biggs, 1979; Newstrom, 1986; Taylor, 1974). The fact is, most producers of generic training cannot and do not promise to impact organization results, even when applications of the new knowledge and skills are critical to organization survival (e.g., safety regulations, new technology, and basic skills training).

In summary, employers are increasingly sending employees from all parts of the organization to classroom training for both "hard" technical skills and "soft" conceptual and interpersonal skills. These employers are increasingly concerned that what is learned in a classroom setting be applied in the work setting. Given the barriers to transfer that are discussed in the next section, their concerns appear to be justified.

Barriers to Transfer

Artise (1984), in an article describing what he called "cutting edge" management development (MD) programs, listed a number of "glaringly evident difficulties" with management training programs in the U.S.:

1. Not enough intense practical application from the classroom to the work place.
2. Decreasing credibility in both the program and its purpose at the higher manager/participant levels.
3. Overspecialization of the MD program, which unnecessarily increases the complexity of the practical variables.
4. Inadequate time allotments for individual, multi-stage MD programs to allow for critical role-play assessment.
5. Not enough, if any, pre-program profiling and evaluation of each participant's managerial track record, degree of learnability [training readiness], and current assignment.
6. Untimely turnover in the management level which is targeted for the program series. Continuity is often disrupted.
7. Underspecialization of the MD program through the absence of the expertise of key delivery personnel and educational materials.
8. A host of political and interpersonal problems between line management and the human resources management staff.
9. Lack of thorough post-program assessment and follow-up
10. Incomplete needs analysis prior to designing the program. (pp. 54-55)

Robinson and Robinson (1985) surveyed 350 training managers to discover the barriers to skill transfer when training front-line service employees. They classified the resulting list of barriers into three categories: Learners; Supervisors; and Organizations.

> The learners
>
> - *Feel that the values and concepts being taught in the program* are contrary to their personal values and their concepts of how the job should be performed
> - Do not feel confident in their ability to apply successfully their new skills to the job
>
> The supervisors of the learners
>
> - Do not coach learners on how to use the skills in on-the-job situations
> - Do not provide reinforcement [feedback] to learners when there is evidence that they have used the skills
> - Are not perceived as models for the skills taught in the training
>
> The organizations
>
> - Punish on-the-job use of the new skills
> - Present physical and motivational barriers, including the lack of authority or time and the presence of procedures or policies that inhibit the use of new skills
> - Do not provide information about unit, department, or organization results following use of the new skills. (Robinson & Robinson, 1986, p. 83)

More recently, Robinson and Robinson (1989) criticized human resource development (HRD) professionals for implementing what they termed "activity training," which is any training that has or will have little or no impact on the organization. The five characteristics of activity training are as follows:

1. The HRD department is held accountable [by the organization] for its activity [number of programs], not for results.
2. The HRD staff is held accountable [by the HRD manager, not the organization] for design and delivery of training programs.
3. Skill transfer from the classroom to the job is unknown or absent.
4. There is a lack of clear alignment [of training goals] with business needs.
5. There is a lack of identified management responsibility for results. (pp. 6-7)

When a training department sees its job as one of producing "activity training," the barriers to transfer may be seen by the participant, the trainer, or the participant's manager to be nearly insurmountable. Training activities that ignore business needs and system dysfunctions and focus on "fixing" individuals will not transfer to the job. In activity training, no one assumes responsibility for "ensuring that the skills taught will be used on the job" (Robinson & Robinson, 1986, p. 8).

In a discussion of obstacles and opportunities for appraisal training, Kinlaw (1984, January) listed many barriers to transfer:

- The training program is introduced with an administrative bias [how to fill out the forms] without convincing trainees of the importance of the activity.
- The system being taught has serious design flaws and may be unworkable.

- The training is directed at managers in the first or second levels of the hierarchy [when top managers do not model the skills, nobody does].
- The training is focused on a task that trainees would prefer to avoid.
- The trainees feel they have been forced to attend training that they don't want.
- The trainees are highly skeptical of the value of the skills being taught. (pp. 43-44)

The above list of barriers to transfer appears to be equally applicable to such essential and relatively unpopular human resource development activities as safety training, programs on the proper handling of grievances or hazardous materials, and workshops on avoiding sexual harassment in the work place.

Some experts have pointed to particular types of barriers to transfer. Their discussions fall loosely into barriers caused by the environment, trainers' lack of expertise, participants' views of the training, and timing.

Barriers Due to an Unprepared Environment

Goldstein (1986, July), in a paper delivered to the International Association of Applied Psychology, discussed four psychological barriers to transfer of training: (1) the lack of physical similarity of the training environment to the working environment; (2) the lack of psychological similarity of the training environment to the working environment; (3) the lack of measurement of participants' abilities to handle the method and the content, and (4) the transfer climate. The first three barriers are based on well-known learning principles. The fourth barrier, the transfer climate, is, according to Goldstein, of major importance because it "involves variables which are often beyond the control of the trainee" (p. viii).

This lack of control on the part of the participant when he or she returns to work is borne out by other experts in the field. Zemke (1981) described a relatively common situation in which a returning trainee's supervisor says "forget what you learned in training and get back to work." In a study of the transfer environment following a writing-skills course, Ricks (1979) found that few of the supervisors and peers in the work setting understood what training participants were trying to do when they applied their new skills on the job. For instance, some of the supervisors delivered positive feedback even when their newly trained subordinates had performed incorrectly. Some of the supervisors seemed totally unconcerned about their subordinates' performance. And some of the supervisors felt threatened by their subordinates' skilled work performance. Only the most determined of the participants overcame these environmental barriers and improved their writing skills over the long term.

In an article titled "Helping Adults Apply What they Learn," Knox (1988) observed such barriers to transfer as the lack of essential resources and management support to carry out the new behaviors on the job. He discussed learners' concerns that peers and others in the work place might be threatened by the proposed changes or that penalties might result from making changes in work place behaviors.

Surely concerns about peer pressure and threats of the loss of friendship have the potential to discourage participants from applying their new skills on the job. In addition, supervisors may forget that time is a necessary resource for adults who are planning and rehearsing new job behaviors.

Negative transfer, or the initial worsening of performance by someone who tries to substitute new behaviors for old (Buzzota, 1986; Cascio, 1987), can be a significant barrier to transfer. Trainees may realize that they will perform slowly when they initiate new behaviors on the job and fear to encounter customers, superiors, and others who will show their impatience. The impatience of others is likely to result in trainees' abandoning their transfer efforts.

In his revealing article "Confessions of a Management Trainer," Braid (1987) discussed his decision to end a successful career as a well-regarded training consultant to hundreds of businesses. Braid, after many years in the training business, reluctantly realized that he was teaching what he believed to be effective work behaviors to hundreds of individuals who would leave the classroom to return to work under the supervision of managers who would likely provide very poor environments in which to apply the new skills. Braid struggled with his conscience as he realized that his well-meant, sincere interventions into what he considered to be destructive work environments would come to naught. In his words:

> The easier it became to detect those highly structured, authoritarian environments which would render our

> training sterile, the more difficult it was to make a pitch to sell the programs. (p. 61)

Thus, Braid brought to the attention of managers and trainers the concept that a major barrier to transfer of training is a work environment that is not prepared to accept the newly learned behaviors.

In the same article, Braid described how he came to realize the futility of training lower-level managers where, for one reason or another, the upper-level managers would not review the content of the training. As a consequence, the upper-level managers could not reasonably be expected to support their subordinates in their efforts to transfer new knowledge and skills to the job. Braid despaired of top managers who willingly paid him large sums for training their subordinates but who were not likely to achieve the benefits they had paid for because they failed to follow up training with on-the-job modeling, coaching, and reinforcement of their subordinates' newly learned behaviors.

Barriers Due to the Trainer's Approach

Carr (1989) claimed that trainers make a major mistake when they put too much of their energies into selling the idea of change and too little into helping individuals accomplish the change. According to Carr, training is only the first of four phases involved in changing job performance. As part of the "razzle-dazzle" kick-off phase, the training may be declared a success by all involved, but then the hard work begins. In phase two, existing habits, patterns, and often the culture itself must be fought. Installing new behaviors in an ongoing organization can be an uphill battle. Morale sags, commitment wavers, and trainees question the value of the new way of doing things. In phase three, the new behaviors still take much effort. Although far from automatic, the new behaviors are becoming easier and more familiar. In phase four, the change is institutionalized. That is, "it takes no more effort to do things the new way than it did to do them the old way" (Carr, 1989, p. 40). Trainers and managers who expend all their energies on the first phase of change and ignore the second and third phases may be inhibiting transfer of training. The trainer's lack of realism about the total effort required to complete a change in a complex organization is a significant barrier to transfer.

Berger (1986), a researcher on corporate culture, found that many trainers engender problems of transfer because their programs conflict with the culture of the organization.

> These problems occur because these programs create a cultural conflict. The culture espoused and supported in the training room is often incongruent with the culture back on the job. Something has to give—either the trainees must reject the new learning or behavior back on the job must be changed. HRD professionals hope it's the latter; most often, it is the former. (p. 54)

The problem of lack of fit between what trainers wish to accomplish and what management will accept can inhibit transfer of training (Brown, 1987). Brown saw the problem of fit as residing in the trainer. In a discussion of the potentially dysfunctional elements of training, Brown stated that "sometimes the fervor training specialists manifest, no matter how well intentioned, gets them into assignments which cannot be fulfilled" (p. 56). He accused trainers of being ideologues because "the conditions they deal with in their organizations certainly tempt them to be so inclined" (p. 57). The dysfunctional aspects of training to which Brown referred appear to stem from trainers' lack of facility in framing and reframing the boundaries of system problems. Experts at a symposium on applying systems theory in human resource development suggested that when trainers frame a system problem too narrowly, their training solutions will not be viewed with approval by decision makers who are looking at the problem from a larger frame (Gradous, 1989).

Trainers who disregard the career stages of participants in their plans can expect that transfer will be limited. Some characteristics of training that contribute to disappointing results in career transitions are are follows:

- Providing the same training for everyone no matter what their job or level in the organization
- Repeating the same subject matter over and over (e.g., telling people over and over about McGregor's Theory X and Theory Y)
- Setting quotas for class registration and filling classes at the last minute with poorly prepared participants

- Setting individual quotas for training hours and filling classes with people who "have to be there" to fill their quota of training hours. (Thompson, et al., 1986, p. 57)

Although there may be some good reasons for repeating subject area training as people mature in their jobs and are ready to understand and use more of the fine points being taught, certainly most of the above mistaken training methods appear to be aimed at filling chairs in training programs. Such training should not be expected to transfer.

Barriers Due to Participants' Attitudes and Perceptions

Many training experts have pointed to the participant as the source for failure to transfer. In a wide-ranging and thorough discussion of transfer of training, Tallman and Holt (1987, winter) identified potential barriers to transfer in the extensive array of attitudes that individual participants bring to the learning situation. They listed four types of trainee attitudes that can affect both learning and transfer:

- Attitudes toward supervisors and peers
- Attitudes toward the work setting
- Attitudes toward self
- Attitudes toward expectations for the future (p. 23).

Cervero, Rottet, & Dimmock (1986), in a study of performance change following a professional education program for nurses, found that individual nurse's intentions to implement the goals of the program were significantly associated with changes in performance on the job. When participants expected to change their performance after training, they did. These researchers also recognized that the magnitude of the change in behavior the training program is designed to effect has implications for the size and power of the change program.

Stewart (1989) theorized that there is a difference between minor and major behavior change as perceived by the individuals involved. Participants' perceptions of the need for minor behavior change appear to require simple training in new understandings and new skills. Participants' perceptions of the need for major behavior change appear to require a larger campaign. According to Stewart, achieving a major development, or change, in an individual requires considerable personal motivation, sufficient time in training to practice and receive feedback on new behaviors, and subsequent follow up and reinforcement of new behaviors on the job. If Stewart's theory is correct, a significant barrier to transfer could be participants' over- or underestimation of the magnitude of the behavior change they are expected to make.

Barriers Due to Improper Timing

Zemke (1981) itemized several barriers to transfer related to the timing of training. For instance, skills training may be provided long after the need for training has passed. An example of training too late will be found wherever the trainer waits to gather a full group of 15 or 20 newly promoted managers before implementing a management skills program. Half of the participants are likely to have been in their jobs for six to nine months. They will have firmly fixed in their repertoires a variety of bad habits and misconceptions acquired through trial-and-error learning on the job. Skills training may also be provided many months before participants are asked to use the skills. Their new knowledge and skills will be forgotten when the time comes to use them. An example of training too soon can be found in organizations where everyone attends training in presentation skills just because it is a good thing to do. Months or years may pass before individual participants are asked to make a formal presentation, long after they have forgotten most of what they learned. Training that is provided for performance on an outmoded system after a new system has been adopted will not transfer. Such mistraining is found wherever trainers spend a great deal of time and effort on creating elaborate training for computer applications that are outmoded by the time the training is ready to be delivered. In fast-moving environments, it follows that quick-and-dirty programs have the potential to transfer more reliably than carefully designed programs.

Responsibilities for Transfer of Training

The training literature is not altogether clear on who among the key players is responsible for assuring transfer of training. Many experts on the subject of transfer implied that trainers or participants' managers should shoulder the burden for transfer. Statements about participants' responsibilities for learning and for transferring their new knowledge and skills to the job are difficult to find in the training literature.

Trainers' Responsibilities

In the 1980s, much of the practice literature on training referred to trainers' responsibilities for producing the transfer. For example, Zemke (1981) strongly affirmed trainers' responsibilities for transfer, "In training, the job isn't done until the 'problem' is solved" (p. 241). Hoffman (1983) spelled out the type of thought process that eventually leads the typical manager to blame the training function for failures in performance: "[Our] managers need to know more about 'Y' or need more skill at doing 'Z.' Therefore, let's give them some development [training] in that area" (p. 37). Whenever training is pointed to as the sole source for solving a performance problem, then training must be responsible for the results. This line of managerial thinking ignores the reality that managers control much of the environment in which participants work and that responsibility for achieving results in their areas remains with them, including the responsibility for developing their people.

The training literature frequently referred to trainers' responsibilities to get management to "buy into," "sponsor," or "support" the training. The recommended approach was to "sell" training to management, an occupation that requires a great deal of self-confidence and strong persuasion skills. Spitzer (1986) also pinned a great deal of responsibility on trainers when he stated that training fails because the training function has failed to mobilize management support.

Managers' Responsibilities

Management literature contains little or no discussion of the need for managers to be involved in carefully and specifically defining problems in performance systems and the need for them to select wisely from a variety of potential solutions. There also is little discussion in management literature about managers' participating in the delivery and reinforcement of training.

The training literature, on the other hand, does specifically define managers' responsibilities for transfer. Swanson and Sleezer (1988) stated that trainers must involve management in training, specifically during the needs-assessment and follow-up phases. Hoffman (1983) stated that because managers are ultimately responsible for the results of development programs, they ought to be involved in assuring those results. He suggested that managers be made responsible for the final determination of which development activities are on target and for on-the-job follow up after the training. Brethower (1972), a behaviorist, discussed the following managerial responsibilities for increasing the impact of training: (1) designing an incentive system to increase the learner's perception of the value of using the skills and to get the learner's commitment to acquire the skills; (2) assuring that the learner has opportunities to apply the new skills on the job; and (3) providing for careful, precise, and timely measurement and feedback so that the learner knows how well he or she has applied the skills.

Participants' Responsibilities

Saxe (1989), in a discussion of measurement at work, highlighted employees' responsibilities to be aware of the performance changes they should make. She suggested that participants measure their before-training and after-training job performances. According to Saxe, every participant in a training activity should answer the following three self-assessment questions:

- In what areas of knowledge and skill do I need help?
- How will I obtain the knowledge and skills I need?
- Now that I have the knowledge and skills, what am I doing differently that demonstrates increased competence? (p. 105)

Also according to Saxe, those participants who ask and answer the above questions are more likely to approach the tasks of learning appropriate skills and transferring those skills to the job as their personal responsibilities. By contrast, participants who believe that improving what they do on the job is the responsibility of everyone else are not likely to consider transfer issues voluntarily.

Transfer As a Shared Responsibility

Perhaps the largest proportion of the burden for transfer should not be falling on trainers' shoulders. Organization theorists, such as Nadler & Tushman (1977), and systems theorists, such as Vaill

(1984), have examined the interdependent, or shared, role responsibilities of manager, participant, and trainer in complex performance situations.

In a letter to the editor of the Training and Development Journal, Ross (1990) protested that he had read in a recent issue what he called "the oft-stated, though unrealistic, philosophy that the instructor is responsible for guaranteeing learning....Quite the opposite is true: the learner is responsible for guaranteeing learning" (p. 6).

Newstrom (1986) surveyed 84 human resource development professionals to identify the most important "impediments to transfer of training." From a list of impediments provided by the respondents, Newstrom derived a set of nine major factors. He then asked another group of 36 trainers to rank order the nine factors. Their rank-ordered list is as follows:

1. Lack of on-the-job reinforcement
2. Interference from the immediate environment
3. Non-supportive organizational climate
4. Training program lacks practicality
5. Training content is irrelevant
6. Change would be uncomfortable
7. Separation from the trainer
8. Poor delivery of training program
9. Negative peer pressure (Newstrom, 1986, p. 36)

Numbers 1-3 above—dealing with problems of interference from the environment and lack of reinforcement and support on the job—

appear to be the responsibilities of management. Numbers 4, 5, and 8—failure to produce needed, relevant, practical, well-delivered training—appear to be the responsibilities of the trainer. Finally, numbers 6 and 7—living through the discomfort of change and tackling new behaviors, sometimes without the immediate support of the trainer—appear to be the responsibilities of the learners.

In complex organizations, many responsibilities are shared. For example, Newstrom's Impediment #9—negative peer pressure—would probably yield to actions by managers, by participants, or by trainers. Managers and trainers could assure participants that their peers will be attending the same training and that they should deal with peer pressure against changing work behaviors with this in mind. Managers and trainers could decide that when work is performed by a group, the whole group would benefit from training together. For example, training designed to increase the productivity of meetings will transfer more readily when groups of people who meet together participate in training together.

Summary

Although most of the literature on transfer of training points to possible lapses on the part of one person or another at one time or another, the problem of transfer would appear to yield to a focused effort by several key players before, during, and after training. These findings are important to the development of a useful model for transfer of training.

CHAPTER III

DEVELOPING A TRANSFER-OF-TRAINING SYSTEM: METHOD AND RESULTS

This chapter answers the first research question: "Can a transfer-of-training system be developed from the literature?" The researcher determined that the method of Subject Matter Analysis (Swanson & Gradous, 1986) could be applied in this instance. Subject Matter Analysis is a method for gathering, analyzing, and synthesizing large amounts of information for the purpose of specifying knowledge work. The Subject Matter Analysis method, as adapted for this research study, involved the following process steps:

Step 1. Gathering quantities of information from training experts and from the literature of the training field or other sources, such as the literatures of systems theory, organization behavior, and management theory.

Step 2. Analyzing the accumulated information for relevancy, appropriateness, accuracy, logic, and usefulness to the purpose

Step 3. Organizing and synthesizing the information that results from Steps 1 and 2 into a conceptual model.

Developing a Conceptual Model for Transfer of Training

A search through the literature for transfer-of-training models yielded only one model that included the three key players: trainer, managers, and participants. Robinson and Robinson (1979) came close to developing such a model. They discussed a variety of techniques by which the trainer could ensure that the skills taught would be transferred to the job. They classified these techniques by the time of their application: before, during, and after the training. Robinson and Robinson (1985) also classified transfer-of-training responsibilities by role: the learner, the supervisor, and the organization. While the Robinsons appear not to have synthesized their classification systems into a model, Newstrom (1986) did. He created a two-axis synthesis model for transfer of training using categories similar to those described by the Robinsons.

A Classification Model of Transfer Strategies

Through an extensive review of the training literature, Newstrom (1986) gathered a variety of strategies for actively encouraging transfer of training. He developed what he called a "classification model" for sorting transfer strategies according to when they could best be used and by whom (see Figure 1).

Primary Responsibility	Time Period		
	Before training	During training	After training
Manager			
Trainees			
Trainer			

Source: J. W. Newstrom, (1986). Leveraging management development through the management of transfer. Journal of Management Development, 5(5), p.39.

Figure 1. A Role-taker/Time-Differentiated Integration of Transfer Strategies

Newstrom asserted that training professionals should improve how they deal with transfer-of-training issues and goals. In spite of the fact that his classification model offered decision makers a rational framework for selecting transfer-of-training strategies, it lacked specific criteria for sorting various transfer strategies into each of the nine cells. Nevertheless, it appeared that the Role-Taker/ Time-Differentiated Integration of Transfer Strategies Model could serve as a solid foundation on which to build a systems model for understanding the difficult issues of transfer of training in complex organizations.

Need for a Systemic Approach

Modern organization theorists view organizations as complex social systems that exhibit the characteristics defined by general systems theory (Brown, 1987; Morgan, 1986; Perrow, 1986; Vaill, 1984; Weick, 1979). Nickols (1989) urged trainers and other human resource development professionals to use general systems theory in their thinking because it holds the most promise as a reliable approach to understanding, changing, and developing organizations. The literature of general systems theory as it relates to transfer of training issues was therefore determined to be essential to developing a model for transfer of training.

General Systems Theory

In a seminar at the University of Chicago in 1937, Bertalanffy, a theoretical biologist, outlined his hierarchical theory of nested, interdependent biological systems. His hierarchy began with the smallest element, an atom, and ended with the largest, the universe. After his ideas were poorly received by those present in the seminar, he returned to Germany, where he remained for the duration of World War II (Davidson, 1983). Thirteen years passed before Bertalanffy (1950) published "An Outline of General Systems Theory" in the British Journal of Philosophical Science. Bertalanffy's ideas attracted the attention of Boulding, an economist. Boulding (1965), in a widely cited publication, "General Systems Theory—the Skeleton of Science," agreed that systems from many disciplines, including electrical engineering, neurophysiology, physics, biology, and "a dash of economics" could be illuminated and classified according to the level of complexity of their "basic unit of behavior" (p. 198). Boulding's system of systems ranged from the simplest level, static frameworks, on through a highly complex level, social organizations. Boulding's system levels from 1 through 9 were as follows:

Level 1. Frameworks [static structures or patterns—the geography and anatomy of the universe" requiring accurate description]

Level 2. Clockworks [dynamic systems with predetermined motions—the solar system]

Level 3. Cybernetic systems [systems capable of self-regulation by means of transmitting and interpreting information feedback loops—the thermostat]

Level 4. Open systems [systems capable of self-maintenance by means of taking inputs from and producing outputs into their environments—the cell]

Level 5. Blueprinted-growth systems [systems capable of reproduction by means of preprogrammed instructions—the plant and its cell-society of differentiated and mutually dependent parts]

Level 6. Internal-image systems [systems capable of increased mobility; of self-awareness; of taking in, organizing, and processing information in service to the organism; of teleological behavior—the animal]

Level 7. Symbol-processing systems [systems that possess self-consciousness and are capable of producing, absorbing, and interpreting symbols, of using language—the human]

Level 8. Social organizations [systems comprised of many symbol-processing role-players who share a common social order and culture—"human life" and society]

Level 9. Transcendental systems [systems composed of absolutes and unknowables] (Boulding, 1956, pp. 202-205). (Bracketed descriptions are adapted from Boulding's text.)

Social organizations, Level 8, are composed of many loosely coupled, adaptive subsystems. Boulding stated that he added the ninth level to his classification system because "it will be a sad day for man when nobody is allowed to ask questions that do not have any answers" (p. 205).

Any training that actually transfers to the job is an intervention in an organizational system. It seems that understanding the hierarchical relationships between levels of systems would be particularly useful to systems interveners "because, in a sense, each level incorporates all those below it, [and] much valuable information and insights can be obtained by applying low-level systems [thinking] to high-level subject matter" (Boulding, 1965, p. 207). This means that highly complex organizational systems (Level-8 subject-matter) can be analyzed at levels 2 or 8 or any level between, depending on the depth of analysis needed to understand the organizational system of interest. In spite of the value of using even the lowest levels of his hierarchy as aids to understanding real-world situations, Boulding cautions system thinkers against "accepting as final a level of theoretical analysis which is below the level of the empirical world which we are investigating" (p. 207). Ashby (1958), a systems theorist, called the need to increase the complexities of one's thinking in order to cope with the complexities of a real-world system "the law of requisite variety." By implication, trainers as interveners in complex organizational systems could encounter difficulties (barriers to transfer) if they oversimplify problem situations and ignore system complexities–if they view the system from too small a frame.

Keeping both Boulding's caution and Ashby's law of requisite variety in mind will prevent the error of oversimplifying truly complex work performance situations. Approaching organizations at Level 4 (the open systems level) and above seems appropriate for diagnosing many training needs and designing organization interventions. The following definitions, which are adapted from Morgan (1986) and Davidson (1983), are useful for trainers who must consider and choose appropriate training interventions into organization processes:

- Open system. Organic systems exist in a continuous exchange with their environment. They affect their environment, and their environment affects them.
- Homeostasis. Organic systems are self regulating and have the ability to maintain steady state [equilibrium].
- Negentropy. Organic systems sustain themselves by importing energy to offset their tendencies to degrade [to suffer entropy].

- Structure, function, differentiation, and integration. In organic systems, these elements are closely intertwined and cannot be removed and examined as separate entities. Taking a system apart destroys the critical relationships between its interdependent parts.
- Requisite variety. To survive, the internal regulatory mechanisms of an organic system must be as diverse as the environment with which it is trying to deal. The system that insulates itself tends to atrophy and lose its complexity and its effectiveness.
- Equifinality. In an open system, there may be many ways of arriving at a given end state. Organic systems have flexible patterns of organization that allow the achievement of specific results from different starting points with different resources in different ways. Structure does not determine process.
- Autopoiesis (self-creation). Organic systems can be spontaneous, and so they evolve and change themselves. (Definitions were adapted from Morgan, 1986, pp. 46-47 and Davidson, 1983, p. 93.)

Characteristics of Open-Systems Models.

The open-systems approach to intervening in an organization's processes requires that the trainer and decision makers take into account such elements in the external environment of the organization as customers, bankers, suppliers, new technologies, regulators, and competitors. Additionally, open-systems thinkers will assume that their organizations consist of interdependent, interrelated subsystems—departments, groups, and individuals (which are complex, whole, open systems in themselves). Systems-oriented trainers are aware that interdependencies and relationships between subsystems loosely tie their organization together. Weick (1979) and Peters (1983) discuss the propensities of organizations to "fall apart," to exhibit entropy. That is, without deliberate, conscious effort on the part of management, various subsystems will begin to serve their own needs and to operate at cross purposes with each other. By implication, managers, including training managers, must understand organizations as systems of subsystems whose interdependencies and relationships require constant attention. The systems approach looks at the set of feedback loops that exist externally and internally in ongoing organizations. The systems approach focuses on relationships between people in the system and looks at all these relationships at once, without isolating people from each other or from the relationships between them and without isolating elements of the process whereby the work of the organization is carried out.

Ashby's (1958) "law of requisite variety" indicates that complex systems generally require complex interventions. By implication, training is not a simple intervention and assuring transfer of training is not a simple process. Trainers cannot just assume that transfer will follow a training experience unless strategies to facilitate that transfer are included in their plans. The task of assuring transfer will, therefore, require the development of a transfer scheme that is as complex as the system that the training aims to affect. Furthermore, given the principle of equifinality, a systems model for transfer of training will include many appropriate but different strategies for encouraging transfer of the skills and knowledge learned in training to the job.

Need for a Dynamic Model. Viable organizations do not stand still. They have the facility to change to adapt to forces from their environments, such as government regulations, customer demands, and environmentalists' concerns. But, systems have forces that will work internally to keep them in a steady state, or homeostasis. Lawler (1981) informed interveners in complex organizations of the need to take into account the forces of equilibrium:

> The forces of equilibrium tend to work to cancel out many changes....To the extent that changing one component of an organizational system reduces its congruence or fit with other components, energy will develop to limit, encapsulate, or reverse the change. (p. 210)

The problem of organizational resistance to change, or the tendency of an ongoing performance system to return to homeostasis, implies that training interventions designed to change individuals, groups, or organizations will require forceful, persistent effort before the intended change is affected.

Organization development theorists Nadler and Tushman (1977) declared that interveners' attempts to influence or change complex systems are doomed if they fail to concern themselves with the concept of "fit," or congruence, between the change objectives and the system. They warned interveners of the folly of teaching an individual to behave in a manner that flies in the face of the total organizational system. By implication, the trainer who tries to teach behaviors that the organization, the manager, the peer group, and the participant will not support is simply wasting organization resources on training that will not transfer to the job.

Guidelines for an Open Systems Model. In Systems 1, a classic text on general systems theory, Kauffman (1980), collected 28 system guidelines, or rules of thumb, to keep in mind when "coping" with complex systems. Several of these "system guidelines" seem especially useful for trainers:

- In a system, "Everything is connected to everything else." [In real-world systems, all the subsystems overlap and affect each other. One cannot deal with one subsystem in isolation, as if it were separate from everything else.]
- "You can never do just one thing." [Beyond the immediate effects of an action, there will always be other effects that will ripple through the system.]
- "There are no simple solutions." [Real-life systems are big, messy, complicated things, with problems to match.]
- "Good intentions are not enough." [Few things are more painful than trying to do good in a complex system and then finding out that one has done a great deal of harm.]
- "If you can't make people self-sufficient, your aid does more harm than good. [Half-way measures create dependencies.]
- "Obvious solutions do more harm than good." [Systems utilize negative feedback to resist external forces for change and will

use their energies to negate what seem to be straightforward solutions.]

- "Look for high-leverage points." [Feedback loops have control units that measure the system's behavior and determine its response to change. The best way to change a system's behavior is either to change the "setting" of the control unit or to change the information that the control unit receives. What one measures and feeds back to the system can have a powerful effect.]
- "Don't try to control the players, just change the rules." [Arrange things so it is to most people's advantage to make the choices that are good for the whole system.] (Kauffman, 1980, pp. 38-39) (The words in brackets were adapted from Kauffman's text.)

Template for a Dynamic Transfer-of-Training Model. Figure 2 shows a training subsystem and the dynamic forces that will tend to constrain or facilitate the activities of the key players in the subsystem. In this template, consideration is given to those forces in the organizational environment that will impact the training subsystem—in particular, the mission, goals, and strategies of the organization and the perceptions of influential decision makers. The template suggests that the professional trainer must be concerned with dynamic forces–their number, their complexity, and their direction (Kanter, 1983). The arrows also demonstrate that objects, called trainers, cannot presume to act upon other objects, called participants and managers. All three key players in a training event must work together within the context of the organizational system.

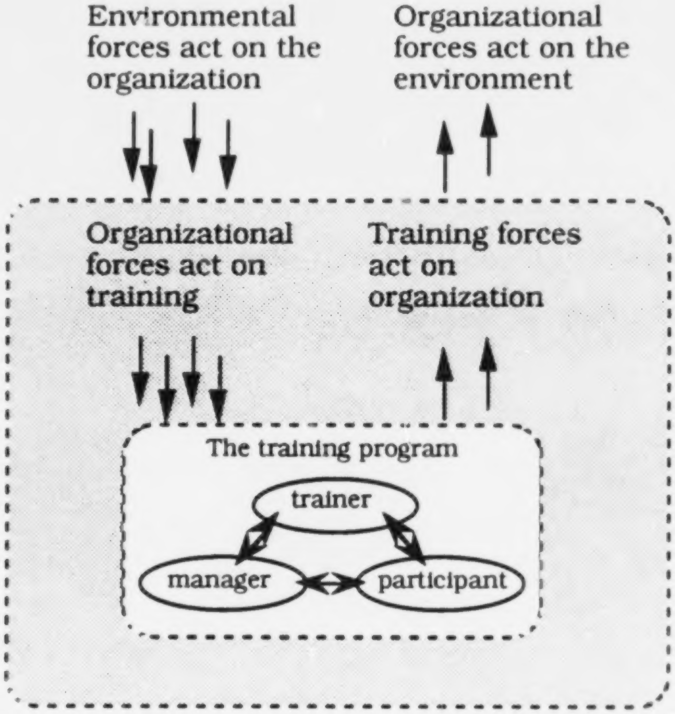

Environmental forces act on the organization
Organizational forces act on the environment
Organizational forces act on training
Training forces act on organization
The training program
trainer
manager
participant

Figure 2. A systems model of a training program in an organization

First Draft of a Systems Model for Transfer of Training

A transfer-of-training model that simply identifies the roles of the key players over time (see Newstrom model in Chapter 2) is not an open-systems model. To acknowledge the systems aspects of transfer of training, the model must be made more complex. Forces in the environment, which provide the context of the organization, and forces in the organization, which provide the context of the training function, must be illuminated in the model. The interdependencies between the key players–trainer, participants, and participants' managers–must also be illuminated in the model.

Figure 3 illustrates an appropriately complex model for determining transfer-of-training issues and strategies. Critical environmental and organizational forces are included in this model. The nine boxes in the model reflect the nine cells of Newstrom's classification model (see,Figure 1). The arrows between the key players indicate the numerous communication pathways through which players may clarify, negotiate, and commit to the goal of transferring classroom learning to the work setting. Still, the conceptual model in Figure 3 appears to be incomplete. The large number of transfer-of-training strategies described in the literature (e.g., Newstrom, 1986; Tallman & Holt, 1987; Zemke, 1982) could be more easily negotiated among the players and included in training plans if the responsibilities over time of each of the key players were more clearly defined.

Adding Responsibilities of Key Players to the Model

The literature provided several systematic training models to turn to for identifying the general responsibilities of each of the key players over time. The military model of instructional systems design, as described by Campbell (1984), appeared not to provide a realistic view of trainers' and managers' responsibilities because it ignores the open-systems influences of high-level decision makers and the organization's environment on the training subsystem.

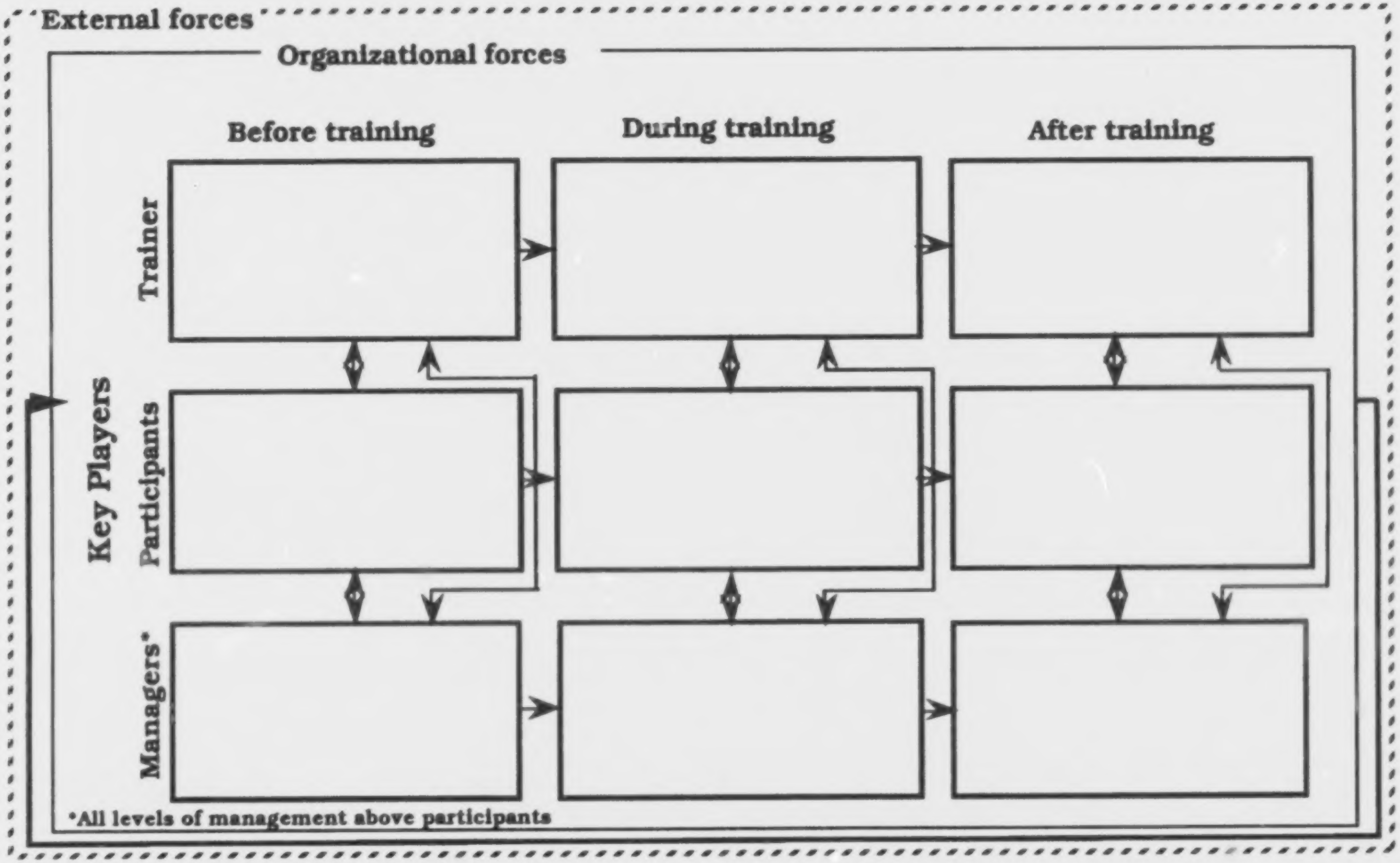

External forces
Organizational forces
Before training
During training
After training
Key Players
Trainer
Participants
Managers*
*All levels of management above participants

Figure 3. A systems model for transfer of training, responsibilities unspecified.

Educational models of instructional systems design appeared not to provide a realistic view of trainers' and managers' responsibilities because they seemed to start with the premise that a budget for a training program has already been approved and provided. Designers and deliverers of programs in educational systems do not often have to justify their programs in the larger economic system (see Dick & Carey, 1978). They also do not have to take into account how well participants and participants' managers are carrying out their responsibilities for transfer of learning in the work setting. Because of its solid grounding in psychology and economics and in the applied fields of management and education, the Training Technology System (TTS) (Swanson, 1987), appeared to provide a realistic view of trainers' and managers' activities before, during, and after training. The Training Technology System was determined to be an appropriate model for beginning to define the various responsibilities of at least two of the key players in the transfer-of-training model: (1) the trainer and (2) the manager.

Trainers' responsibilities: TTS Model. Trainers' responsibilities before the program include carefully specifying the causes of the performance need, developing and presenting to management a proposal for a management action and/or a training program to fill the need, analyzing the specific content to be delivered in the program, designing the training, and developing the training materials. The trainer's responsibilities during the program chiefly involve delivering the program. The trainer's responsibilities after the program include evaluation and follow-up activities (see Figure 1 of Swanson, 1987, p. 9).

Managers' responsibilities: TTS Model. Line managers' responsibilities before training in the TTS Model (Swanson, 1978) include (1) identifying a need for a change in work performance, (2) receiving and approving the trainer's proposal for a training program to meet the identified training need, and (3) allocating resources for the program. No specific responsibilities for the line manager during the program were identified in the TTS Model. Following the training program, the line managers' chief responsibilities, according to the TTS Model, include evaluating whether or not the original need has been met and approving continuation of the program until all appropriate personnel have been trained.

Participant's responsibilities from the literature of adult education. The TTS Model does not specify the participants' responsibilities for any of the three time periods specified in the transfer-of-training model. This absence seems to imply that trainers can do little to ensure participants' commitment, responsibility, and follow-through in pursuing the transfer of new skills from the classroom to the work place. Participants' responsibilities were, however, addressed by Carlisle (1985), who listed several "things that lead to satisfactory learning":

Before the program

- Trainees are prepared (have studied)
- Trainees are interested in the subject
- Trainees set goals

- Trainees are motivated to learn

During the program

- Trainees have good notes
- Trainees are on time
- Trainees set priorities concerning study time
- Trainees relate concepts [presented] to understandable ideas

After the program

- Trainees apply what is learned (pp. 75-76)

Motivation to transfer, or the trainee's desire to use on the job the knowledge and skills they mastered in the training program, was addressed in a study by Noe and Schmitt (1986). Sixty educators participated in the study, which was part of a larger project on evaluating training programs designed to improve the administrative and interpersonal skills of educators. The researchers found that trainees' involvement in their jobs and careers was an important antecedent of learning and behavior change: "Career planning was found to be an important prerequisite for improvement in actual on-the-job behavior as a result of participation in the training program" (p.518). By implication, participants before training must see how the training fits into their career plans.

Trainees' persistence in attempting to apply new skills on the job after the training is important. "By themselves, training programs don't change behavior—continuing practice and application of what's learned in programs does" (Buzzotta, 1986, August, p. 60). Manz (1986), in a discussion of personal behavior management, was clear about the need for individuals to assume responsibility for their growth in the job. He called his theory of self-influence processes "Self-Leadership." Manz argued that whether or not supervisors and others would support new behaviors on the job, participants could be taught to take charge of changing their work behaviors by developing their own behavior-control system. Manz's self-leadership system included setting a personal standard for behavior on the job, measuring one's behavior against the standard, setting a goal to reduce a discrepancy between standard and actual behavior, and setting up a system for delivering one's own reinforcement/reward upon achieving one's goals. Similarly, Marx (1982) recognized individuals' responsibilities for changing their behaviors on the job. Marx developed a relapse-prevention model for helping trainees maintain new skills over time and through periods of stress and potential loss of self-control. Marx's relapse-prevention model consists of a set of self-control strategies that trainees can use to cope with problems of relapse on the job.

McLagan (1985) placed a significant portion of the responsibility for achieving the benefits of a training program squarely on the shoulders of participants. In a booklet directed to participants in a variety of training situations, she merely acknowledged trainers' responsibilities, but she emphasized participants' responsibilities:

> Better designs, more focused programs, tighter quality control and evaluation, and better teaching/presenting could all contribute to improved results for all... But...each of us, when we're in a participant/learner role, has the

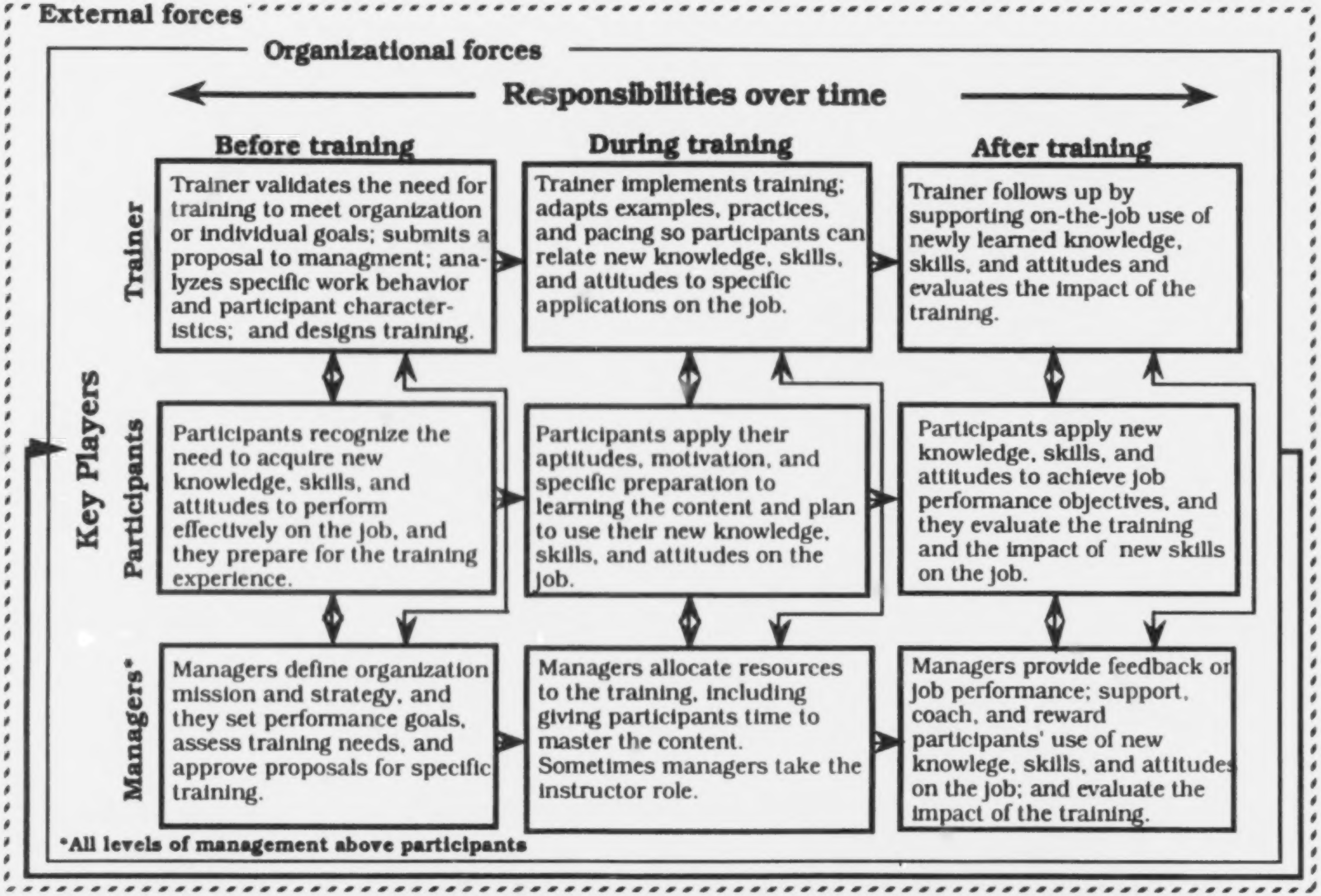
> power and potential to choose, customize, and manage the results of that program for us and our needs. (p. v)

McLagan offered several hints for getting the most out of a learning experience: (1) preview the program content and develop a plan for increasing personal motivation to learn; (2) participate actively through role playing and note taking; (3) get the most out of reading materials and computer-aided learning; and (4) develop action plans for transferring the learning from the training setting to the work place.

Although the training literature that identified participants' responsibilities in the periods before, during, and after training is limited, the adult education literature clearly specified participants' responsibilities. By implication, participants' responsibilities ought to be clarified and included in a conceptual model for exploring transfer-of-training issues.

Result: A Dynamic Transfer-of-Training Model

The second draft of the conceptual model for transfer-of-training (see Figure 4) includes the three roles of trainer, participants, and managers and their specific training responsibilities over time as they interact within a complex, open system. The model synthesizes a great deal of information about training and transfer. Its purpose is to guide the selection of transfer strategies to increase the probability that transfer of training will take place in complex organizations. In essence, the conceptual model could serve as a guide to any of the three key players as they strive to understand the



	Before training	During training	After training
Trainer	Trainer validates the need for training to meet organization or individual goals; submits a proposal to managment; analyzes specific work behavior and participant characteristics; and designs training.	Trainer implements training; adapts examples, practices, and pacing so participants can relate new knowledge, skills, and attitudes to specific applications on the job.	Trainer follows up by supporting on-the-job use of newly learned knowledge, skills, and attitudes and evaluates the impact of the training.
Participants	Participants recognize the need to acquire new knowledge, skills, and attitudes to perform effectively on the job, and they prepare for the training experience.	Participants apply their aptitudes, motivation, and specific preparation to learning the content and plan to use their new knowledge, skills, and attitudes on the job.	Participants apply new knowledge, skills, and attitudes to achieve job performance objectives, and they evaluate the training and the impact of new skills on the job.
Managers*	Managers define organization mission and strategy, and they set performance goals, assess training needs, and approve proposals for specific training.	Managers allocate resources to the training, including giving participants time to master the content. Sometimes managers take the instructor role.	Managers provide feedback on job performance; support, coach, and reward participants' use of new knowlege, skills, and attitudes on the job; and evaluate the impact of the training.

*All levels of management above participants

Figure 4. A conceptual model for assuring transfer of training in organizations

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tasks and the communications for which they are responsible if they expect training to transfer to the work setting.

However, the model alone is incomplete. Rather, a transfer-of-training system consisting of (1) the conceptual model and (2) three well-organized and internally consistent checklists (one for each player) offering alternative transfer-of-training strategies could provide an effective means for increasing the probability that transfer will occur.

The next section of this chapter describes the method and the results of developing the three checklists.

Developing the Three Checklists

A similar method was used for developing the three checklists. The checklists of transfer strategies reflect the three roles and the three time periods of the transfer-of-training model. They also reflect the communication arrows in the model. Initially, the researcher determined that the transfer-of-training checklists should

- Accurately reflect the model
- Include a full range of alternative transfer strategies
- Serve as a guide for communications between the key players

Accuracy demanded that a total of three checklists be developed–one for each of the key players specified in the model–and that each of the checklists be designed to show the time periods specified in the model. The criterion of including a full range of alternative transfer strategies presented a challenge to the researcher. Most experts who wrote on the subject of transfer of training limited their lists of transfer strategies to suit their unique perspectives and purposes. Of all the authors offering lists of transfer strategies, only Newstrom (1986) appeared to have developed a list with a two-axis model in mind.

In order to create three checklists that would offer a full range of transfer strategies, the researcher systematically gathered lists of transfer-of-training strategies from the literature, from training experts, and from her own professional experience. Most of the transfer strategies that were ultimately included in the three checklists were derived from more than a single source. Some strategies were deliberately created out of the need to keep the checklists consistent with each other and with the model.

The three checklists went through several major revisions of format and content. At the beginning of the process, the researcher hoped to find a way to keep each of the lists to a single page. That goal proved to be an impossible one to achieve. Every new piece of literature about transfer of training, and every new attempt to make the strategies consistent across all the checklists produced either changes in language or the addition of new strategies or both.

Result: Three Checklists of Transfer Strategies

The final drafts of the three checklists, which range from four to six double-columned pages, appear to meet all three of the criteria above. (See Figure 5 for an example page from the trainer's checklist and see Appendix C for the complete checklists after validation.) Each of the checklists reflects the role responsibilities of a single key player in all three time periods of the transfer-of-training model. Each provides a full range of alternative transfer strategies. All three have been carefully coordinated in language and in the relative placement of strategies in order to facilitate communication between the key players.

During this development process, the researcher was surprised to discover that many transfer strategies, which in the literature had been assigned to a single role, actually were shared by two of the three key players or by all three. For example, (a) the strategy of relating the training to business goals was eventually inserted into all three role checklists and (b) the strategy of estimating the value of the training was inserted into the trainer's and the managers' checklists. In the training literature, both of these strategies had been assigned only to the trainer. As the three checklists were made more consistent with one another, the participants' and the managers' checklists grew greatly in length. Still, the trainer, by virtue of his or her professional expertise, will continue to assume the greatest number of responsibilities for assuring transfer of training.

Summary

The transfer-of-training system consists of two parts: the conceptual model for transfer of training and the three checklists. A transfer-of-training model was developed using the literature of general systems theory; the Training Technology System, a systematic and economically and psychologically based training theory; and adult education theory. The format for the three checklists conforms to

Trainer's Checklist for Transfer of Training

Before the training program, the trainer validates the need for training to achieve organizational or individual goals; submits a proposal to management; analyzes specific work behaviors and learner characteristics; and designs training.

Validating the need

1. How important is this training to this organization at this time?
___This is a highly visible event
___A costly problem will be eliminated
___Estimate of return on investment is high
___Goals for the future require new, more competent people
___Other__________________

2. Which of the following performance goals of the individual participant or the organization does this training address?
___Organization mission, strategy, or goal
___Business problem
___Business opportunity
___Participants' career development strategy
___Succession planning
___Other__________________

3. How will the manager or managers of participants support this training?
___Participate in the needs assessment
___Allocate resources for the training
___Participate in the design of training
___Attend a preview session
___Nominate appropriate participants
___Agree to visit or present at the session
___Provide staff support for completing assignments
___Provide follow-up coaching
___Reward skilled performance on the job
___Other__________________

4. What specifically does the manager want the participants to be able to do that they cannot or do not do now? Attach a list of the major behavioral objectives (stated in job-related terms):

5. Besides this training, what organization changes will be made to assure that the new knowledge and skills will be used on the job?
Changes will be made in the
___Performance monitoring and feedback system
___Reward system
___Succession plans
___Performance appraisal system
___Work methods
___Resources allocated to the job
___Formal recognition system
___Other__________________
___No changes will be made

6. At what organization level is this training directed?
___Support and clerical staff
___Operators
___Assembly
___Technical
___Professional
___Presupervisory and supervisory
___Middle management
___Senior management
___Executives
___Other__________________
___Not directed to a particular level

Figure 5. Example page from the trainer's checklist

the major elements of the transfer-of-training model. The strategies that constitute each of the checklists were derived from the literature of training practices, from experts in the field of training, and from the researcher's expertise. Certain of the strategies were created during the process of making the checklist responsibilities of the three key players consistent with one another. The result is a system, a model and three checklists, that can be used by the key players to assure that organization investments in training will transfer to the job.

CHAPTER IV

VALIDATING THE SYSTEM:
METHOD AND RESULTS

This chapter answers the second research question: "Can the transfer of training system be validated by experts in the field of training?" In this chapter, the researcher describes (a) the method for validating the model and the checklists and (b) the results of that validation.

Expert Validation of the Transfer-of-Training System

McLagan (1989), author of Models for HRD Practice, a study for the American Society for Training and Development, itemized the criteria she used for evaluating concepts, theories, or models in the the field of human resource development:

- They can be validated.
- They have practical utility.
- They contribute to the advancement of the field.
- They include suggestions for application, synthesis, or modification of existing concepts, theories, or models.
- They stimulate questions about current assumptions and related issues.
- They can be replicated. (p. 21)

Because the transfer-of-training system was developed for use in business and not-for-profit organizations, the researcher selected a convenience sample of training practitioners and business people for the purpose of validating the apparent usefulness and the content of the transfer-of-training system. Two forms of face-to-face reviews were used: (a) interviews with five individual practitioners and (b) sessions with two groups of professional trainers and business persons.

For the individual reviews, five training experts were selected:

1. James J. Peterson, Human Resources Sector Director, 3M Company; Building 220-5W-02; St. Paul, MN 55144-1000.
2. Sue Stanek, Account Manager, Business Incentives; 7630 Bush Lake Road; Edina, MN 55439
3. Bob Schoeneberger, National Director of Training, Deluxe Corporation; 1080 W. County Road F.; St. Paul, MN 55126
4. Gil Kinnunen, Training Media Specialist in an unidentified state agency
5. Roger Miller, Employee Development Specialist; Minnesota Department of Employee Relations; 520 Lafayette Road; St. Paul, MN 55155.

The researcher called each of the experts and informed him or her about the purpose of the research and the need for expert review of the transfer-of-training system. Appointments were made. During the meetings to review the transfer-of-training model, the researcher solicited comments related to the above criteria. The protocol in Appendix A was used as a guide for the reviews, which were carried out in a conversational mode. The results of the reviews of the model by the five experts are spelled out in the next major section of this chapter.

Two groups were chosen to validate the system. The researcher presented the transfer-of-training system at a meeting of the Minnesota chapter of the National Society of Performance and Instruction (NSPI). Thirty NSPI members and guests attended. The entire 2-hour program for the meeting was devoted to reviewing the model and the checklists. After the introduction of the topic and the essential definitions, a list of barriers to transfer (from the literature search) was presented to the group. Additions to the list of barriers were solicited from the group, but none were offered. The transfer-of-training model was then presented to the group. The researcher entertained comments and criticisms from the group, who collectively represented many years of professional service to a multitude of organizations. An open discussion on the model as a whole and on individual parts of the model yielded no suggestions for making it either more useful or more complete for practitioners.

After a 5-minute stretch break, the researcher asked the members of the group to write on individual post-it notes™ the strategies or techniques that they already used or would consider using to overcome any of the barriers to transfer or to carry out the responsibilities described in each of the nine cells in the model. They approached the task with enthusiasm. Many people wrote down a number of strategies. The researcher then split the large group into nine small groups. Each small group was given a poster-sized card representing a cell from the model, with the name of the role and the time of responsibility written across the top the card. The groups were then asked to gather up all the strategies and techniques (on the post-it notes™) that seemed to fit the role responsibilities and the time period on their cards. Following this activity, they were asked to examine the strategies that were affixed to their cards and to pass along any strategies that did not fit their cell to the group holding the appropriate card. Finally, each of the groups, beginning with the top left cell and progressing to the bottom right cell, read aloud the strategies they had collected. Members of the large group were charged with examining whether or not each suggestion as it was read fit the identified cell in the model. This process served to validate each cell of the model as well as the fit of transfer strategies into the model. A "backward translation" method like this is often used to validate translations of text from one language to another.

In addition, three respected senior practitioners in the group were each handed a complete role checklist and asked to review it for fit with the model and for any changes they could suggest. The results of the NSPI group validation are given in the next major section of the chapter.

A month after the NSPI meeting, a group of business people, training professionals, and graduate students gathered in a classroom at The Pennsylvania State University for the express purpose of validating the model. This group was asked to apply a slightly more stringent process of "backward translation." After presenting the definition of transfer of training and a list of the barriers to transfer from the literature, the members of the group were asked to write transfer strategies to overcome the barriers on individual post-it notes™. They wrote furiously for 20 minutes and identified a great variety of transfer strategies. Following this activity, the researcher introduced the transfer-of-training model and asked the group to fit the transfer strategies they had identified to the model. They experienced no difficulty in doing so.

Results

Reviewers' comments on the validity and usefulness of the model and the checklists are discussed in this section. Their suggestions for additions, deletions, and other changes are specified in Appendix B.

Improvements to the System by Individual Experts

James Peterson. This expert reviewed the model and the three checklists from his point of view as the human resource director of a very large, multi-national corporation. He suggested that the managers, as well as the trainers, would be evaluating the training after the program. He said that the model appeared to be logical and complete. After noting that environmental and organizational forces were included in the model, he agreed that both sets of driving forces could seriously affect transfer of training. For example, when a customer finds a new way of using a product—which has the potential of greatly increasing sales of the product—that information should immediately be inserted into sales training for the product. He said that the model solidified his thinking about who should be responsible for seeing that training contributed to making a difference in performance on the job and in organization results. He thought that the model would be especially useful for talking to managers about their important roles in transfer of training.

When reviewing the checklists, Peterson was surprised that so many alternative strategies were available for increasing transfer in each of the cells in the model. For his suggested changes to the checklists, see Appendix B. Peterson was asked if he thought the three key players would be willing to work through such checklists. He speculated that completing their respective checklists might present major problems to managers and participants but that asking them to do so might be a worthwhile activity for two reasons: (1) the task of examining their checklists might serve to educate people on the reasons why training does or does not transfer to the job and (2) the process of choosing several checklist options might help them commit to one or more actions to assure transfer of training.

Susan Stanek. This expert reviewed the model and the checklists from the point of view of a consultant to managers in many different kinds of businesses. She thought the model was complete and accurate and that it had both face and content validity. She said that as a consultant, she would appreciate having the model and the checklists as a new tool to help her design transfer strategies into the management courses that she regularly delivered.

When reviewing the checklists, Stanek offered a number of suggestions for improving them (see Appendix B). She was of the opinion that the checklists would be too complex in their present form for participants and their managers. She suggested that the trainer should analyze the training situation, select appropriate items from the checklists, and approach the participants and their managers with a shortened list of transfer strategies from which to choose. She also suggested that the researcher could consider using an action-planning format when working with participants and managers who had used action planning on previous occasions.

Robert Schoeneberger. This expert reviewed the model and the checklists from the point of view of the director of training in a company that requires absolute accuracy from its production workers and excellence from its managers at all levels. Top managers at Deluxe Check Printers run a tight ship. Schoeneberger stated that the transfer of training model made a lot of sense to him. When reviewing the three checklists, he suggested changes that may be found in Appendix B. He requested copies of the complete model, to use in improving a training program he was developing for lead workers.

Gil Kinnunen. This expert reviewed the model and the checklists from the perspective of a specialist in designing training media. He stated that the model reflected reality as he knew it, except that it was more complete than his own mental model on transfer. When reviewing the three checklists, he suggested one major change. He thought it would be helpful to classify and group the items in the longest lists of items on the trainer's checklist.

Roger Miller. This expert reviewed the model and the checklist from the perspective of a training professional who had for years emphasized transfer of training in all the programs he designed and delivered. In addition, he had just presented to a train-the-trainer class a session on transfer of training. Miller reviewed the model and stated that it appeared to be complete. He offered no additions. Miller commented that the checklists were "by far the best collection of transfer techniques I have seen." About the trainer's checklist, he said, "Just by filling it out, I would be more likely to use some of the techniques for a current program and for programs in the future." Miller suggested several changes to the checklists. They are listed in Appendix B.

Group Validation: National Society for Performance and Instruction

Following the group's review of the model, the consensus was that it made sense, appeared to be complete, and would serve as a useful model to guide their work and their communications with managers and participants. The instructional designers among the group noted that they spend most of their time and effort in the time period before the training and that it did not seem right to them that so much intense effort appeared on the model to have the same level of importance as transfer activities during and after training. The researcher responded by asking whether they might consider putting more effort into seeing that training was implemented according to their design and into pursuing more follow-up strategies. They conceded that they probably had, in practice, neglected these important responsibilities.

As the result of the exercises described above, this group produced many transfer strategies and techniques for implementing the model. Twenty-four of these techniques were new to the researcher. That is, they had not been identified during the review of the literature. The new strategies (see Appendix B) were added to the various checklists, and the checklists were again made consistent with one another.

Group Validation: The Pennsylvania State University

Importantly, this group of expert trainers, business people, and graduate faculty and students in training and development experienced neither difficulty nor confusion in classifying their transfer strategies into the nine cells in the model. Despite the many transfer strategies that they contributed on post-it™ notes, all of their suggested transfer strategies had already been included in the three checklists.

Summary

The model and the checklists were closely examined by many experts in the field and by business people. These expert reviewers all agreed that the conceptual model possessed both face validity and content validity. The reviewers approved the concept and the format of the three checklists and agreed that they accurately reflected the model. They also said that the three checklists far exceeded their personal criteria for completeness. Details of the changes they suggested for the model and the checklists are documented in Appendix B. Their suggested additions, deletions, and changes were applied to the checklists, which appear in final form in Appendix C.

CHAPTER V

APPLYING THE TRANSFER-OF-TRAINING SYSTEM: METHOD AND RESULTS

The purpose of this study was to develop, validate, and implement a transfer-of-training system. Three research questions were asked. Research Question #1 required the development of the conceptual model and the checklists. The method and the results of that development were described in Chapter III. Research Question #2 required that the system be validated by experts. The method and results of that expert validation were described in Chapter IV. Research Question #3, "Is the system a useful decision-making aid for increasing transfer-of-training in an organization?" is the subject of this chapter. Answering this question required that the system be applied in an ongoing organization. Both the method and the results of that application are described in this chapter.

The potential difficulties of conducting an experimental study to evaluate the transfer system in an ongoing organization are daunting. Nevertheless, the hope of conducting such a study was entertained until it became an impossibility. For the following account, the researcher relied on carefully kept notes of meetings and critical decisions that were made.

Finding an Organization

The director of training services of a large state agency expressed an interest in applying the transfer-of-training system as developed by the researcher. He said that his goal in volunteering for a research study was to increase the benefit that his agency would derive from a selected training program (later the DMS Refresher training). He believed that all six training professionals in his training services department would be excited by the challenge of conducting the study. The training services director then met with his staff, who, he said, were eager try out new ideas for increasing transfer of training. They also agreed to accommodate the requirements of the study; i.e., providing access to personnel and keeping extra records as necessary. The training services staff customarily provided all "soft skills" training. They preferred to have internal or external technical experts design and deliver all other agency training. For internal course designers/instructors, the training services staff provided train-the-trainer sessions and other supportive measures.

Log of Critical Decisions

The following log of events in the application process is written in the order in which the transfer-of-training system was applied by the training services staff and the course designer/instructors. The log shows how the two groups used the model and the checklists in their thinking and in their planning for producing a specific training program. In the account that follows, *model* refers to the transfer-of-training model, *checklist* refers to one of the three transfer-of-training checklists, and *transfer system* or *system* refers to the transfer-of-training model and the checklists combined.

Event 1. Introducing the transfer-of-training system

During an initial meeting between the researcher and the training services staff, the transfer-of-training model and the checklists and the manner in which they had been developed and validated were reviewed. The researcher asked the group if the transfer-of-training system made sense to them. They said that it did and that this activity of reviewing the model had already increased their awareness of a number of aspects of the training situation that they would have to take into account if they expected any training to transfer. A discussion of the potential usefulness of the transfer system as a decision aid ensued. By the end of the meeting, the training services staff had determined that the system could be a useful tool for promoting transfer of training. They expressed interest in applying the system to a training program on which the course designers/instructors already done considerable prework. They thought this prework fit the model. The group agreed to another meeting in which the researcher would more thoroughly explain the transfer system to all members of the training services staff who wished to attend.

Event 2. Examining environmental and internal forces

At the next meeting, the researcher met with the same group plus all the members of the training services staff who had not attended the first meeting. The group worked methodically through the details of the transfer system, raising questions of clarification or procedure. They all said that the system made sense to them and that by applying it they should realize greater transfer from their classrooms to the job. Then, only the members of the training services staff who were actively working with the researcher stayed for the remainder of the meeting. They saw the need to assure themselves that the activities already completed for the selected training program fit the requirements of the system.

Because the model is a systems model, it indicates that consideration of environmental and system forces is essential when planning for transfer of training. The researcher asked the group to identify the driving forces, if any, that they had taken into account in planning for the program. As directed by the model, the members of the group were able to identify a major environmental force that was impinging on the agency. This force was in the form of frequent requests for improvement of the work of the agency made by state legislators. This pressure for improvement had been continuous and ongoing for years. Although, nothing about the legislative requests was particularly new, what had recently changed was the agency director's view of this pressure. In 1990, the director and the advisory board formally set a goal to improve the agency's response to all of its constituencies. They had included in the agency's strategic plan for the 1990s a statement focusing on improving customer service: "We are systematically removing the barriers that prevent our frontline workers from providing the best possible service to their customers."

To meet this and other objectives, a computerized data base of customer records had been installed about 18 months previously. The training services staff had at that time delivered computer training to several hundred agency employees who needed to access customer records via the computerized data base.

Following the discussion of driving forces, the researcher and the training services staff at the meeting agreed that the model encouraged thinking about the number, the relevance, and the importance of environmental and organizational forces for change. They said that the training staff had responded to these forces when planning the original training for the Data Management System (DMS).

Event 3. Reviewing management's requests for training

In the previous six months, the managers of three separate agency functions had approached training with a request that additional training on accessing the customer data base be offered to agency employees. The managers making the requests were the director of security, the data management supervisor, and the computer systems manager. The director of security stated that his records showed that many agency employees were making excessive errors when they accessed the specific computer screens they needed for working with customer records. The fact that another new computerized data-management system for other agency records would be coming on line in the near future added urgency to their request for training on the DMS system. Both systems would be accessed through the same desktop computer terminals by the same employees.

According to the model, the *before training* responsibilities of the manager includes identifying the need for training. The requirements of the model in this regard appear to have been met.

Event 4. Reviewing the formal needs assessment process

Also during the second meeting, the researcher pointed to the *trainer before* aspect of the model, which contains language to the effect that the trainer will conduct a needs assessment before accepting a manager's definition of the training need. The training services staff was pleased to be able to report that they had sent a survey of DMS training needs to all agency supervisors, requesting details on their subordinates' use of the DMS and their opinions of the need for offering additional training. The responses to the survey had indicated that there was sufficient need to justify offering refresher training on the DMS.

Even though some of the *before training* events specified by the model had already occurred, the training services staff perceived that they had followed the logic of the model. The researcher concurred.

Event 5. Choosing a specific training program for the study

The training services staff then examined their schedule of DMS training classes and decided that they would implement the transfer model on the last two classes of the DMS Refresher Training, which were scheduled for the following month. This short period would leave just enough lead time to deliver the first courses as designed and to affect a few changes in planning and designing the special transfer classes.

Event 6. Evaluating the job performance aspects of the DMS Refresher Training

Participants in the eleven DMS Refresher classes totaled 140. They worked in many different positions at the agency and were sent to the training by their supervisors, who identified a need for training.

For security reasons, the DMS was protected in two ways: (1) by assigning passwords to everyone whose job required that they access the system and (2) by limiting employee access to the various levels of screens in the customer files. Depending on job responsibilities, employees were authorized to access a few, some, or all of the screens in the customer files. For example, clerk-typists were authorized to access a limited number of screens in a file. Some employees could access and change only the demographic data in a file in response to written notices of status changes. Other employees were authorized to access a great many or perhaps all of the screens in a file. Training employees to use the DMS fit a major assumption underlying the transfer system—the assumption that only job-performance training could be expected to transfer to the job.

Event 7. Finding a suitable job-performance measure to use in evaluating transfer of DMS training

The model requires that the manager who requests the training and the trainer both evaluate the training, especially any changes in job performance following the training program. The director of security, who had initially requested the DMS Refresher training, was present at a third meeting of the researcher and the training services staff. During this meeting, he informed the group that because the security of the Data Management System was of vital interest to the agency, a continuous computerized record by key stroke was kept of all unauthorized attempts to access DMS screens. This security file was printed daily for examination by security staff and monthly for distribution to interested agency managers. Soon after the DMS had come on line (18 months ago), the security staff had determined that the great majority of recorded attempts to access unauthorized screens were the result of two types of operator errors: carelessness in keyboarding and lack of operator knowledge of the proper path to the desired screens. The large number of operator errors that were recorded daily had vastly compounded the difficulty of identifying any real threats to security.

The *manager after and trainer after* responsibilities in the model included evaluating whether the training had improved job performance. The training services staff and the director of security wondered aloud if the security record would provide an adequate job-performance measure for evaluating transfer. Because the total number of operator transactions was not available in the security record, the rate of errors for each operator using the system could not be calculated. However, the number of errors per operator per month could be counted and the total number of errors per operator in equivalent time periods before and after training could be compared. The training staff and the researcher decided that because a major goal of the DMS Refresher training was to reduce errors, the security file would do very nicely as a performance record. (The director of security, besides having a vital interest in improving the job performance of persons using the DMS, was scheduled to be a course instructor for a part of every course on the DMS Refresher Training schedule.)

Event 8. Developing an Experimental Design for the Study

The researcher introduced the possibility of using an experimental study to evaluate the training. The directors of training and security, members of the training services staff, and the researcher agreed to use the security record as the major measure of the results of an experiment. They agreed to the following research plan:

a. Random assignment of program participants to two control groups (14 operators each, or n = 28) and two experimental groups (also n = 28) would allow the following research design:

Control Group: A O_{PB} X O_{PA}

Control Group: B O_{PB} X O_{PA}

Experimental Group: A O_{PB} X_{TT} O_{PA}

Experimental Group: B O_{PB} X_{TT} O_{PA}

O_{PB} = Work performance measure (errors recorded for 22 working days before training)

X = Course delivered in traditional manner

X_{TT} = Course plus transfer of training strategies

O_{PA} = Work performance measure (errors recorded for 22 working days after training)

b. The department training staff would ask the course instructors to adjust their schedules so that all four training groups in the experiment could have the same instructor team. All four instructors would design and deliver the training.

c. Participants in the two control groups and the two experimental groups would come from the same pool of employees of the agency who needed to access the DMS and who in the needs assessment phase had been identified as potentially benefitting from DMS refresher training (about 140 people). Supervisors would be selecting the participants.

d. All of the DMS classes were limited to 14 participants because that was the total number of computer terminals available in the classroom.

e. For the experimental classes, several strategies from the transfer-of-training checklists for the three key players would be selected and implemented by the training staff and the course instructors. The researcher could offer guidance, but was not qualified to determine what transfer strategies would be acceptable to the organization.

f. Pre- and post-training job performance would be measured by counting the number of errors per participant in the security record 22 working days before training and 22 working days after training.

g. Finally, the performance data for the two control groups and the two experimental groups would be analyzed to determine the difference in performance, if any, between the control groups and the experimental groups.

The expected performance evaluation would fulfill the *after training* responsibilities of the trainer and the managers in the model.

Event 9. Problems with random assignment

Several days after finalizing the plans for the experimental design for evaluating the training, the director of training informed the researcher that random assignment would not be possible after all. As was customary in the agency, the supervisors firmly held to their power to schedule their subordinates for training in accordance with job demands. Because random assignment could not be done and because it would be difficult to impossible to manage the threats to validity, the researcher determined that the true experimental design for evaluation should be abandoned. The director of training and the researcher agreed that the evaluation could still be achieved, but less formally and by other means. (After this point the first two groups are named the Non-transfer Groups and the second two groups are named the Transfer Groups.)

Event 10. Focusing the course instructors on the need to build transfer strategies into the training design

The first two of the eleven scheduled DMS refresher classes, had been designated the non-transfer groups. These two groups participated in the DMS refresher training just as it was designed before the transfer-of-training study was planned. Two days later, the researcher met the three technical experts who had designed and were teaching the course (the course was team taught). Attending the meeting were the previously mentioned course designer/instructors (not the training staff), the director of security (the fourth instructor), the supervisor of the "help desk" in the data-management department, and the director of training services. The director of training services introduced the researcher and the purpose of the study. He stated that he was in favor of finding ways to make this "excellent training program even better." His reassuring words were crucial because the course designer/instructors were feeling threatened by rumors that some changes in the DMS refresher training would occur. Not knowing that they would participate in deciding the changes to be made, they had worried about losing their trainer responsibilities. The researcher then explained the need to avoid doing anything that would affect the learning or the job performance of the participants in the non-transfer groups, including informing those participants that they would not be given the special transfer course.

The researcher introduced the term "transfer of training" to the course designers/instructors and informally introduced the model and the checklists. The responsibilities of the three key players made sense to the instructors. They declared, however, that in their experience managers and participants did not do much before or after training and that sometimes participants approached the classroom experience as if it were a "vacation" from their work. The director of training said that he would concern himself about involving managers and participants before and after training, but that it was the course designer/instructor's task to decide to carry out the trainer responsibilities in the model. At that point, all four instructors began concentrating on the various responsibilities of the trainer.

Individual instructors then stated that although they had used some of the transfer strategies in past training programs, they had no data to back up any claims of increased transfer to the job. They also informed the researcher that they had not consciously designed transfer strategies into the DMS Refresher training as it had already been delivered to the non-transfer groups. They simply had assumed that their training would transfer.

On the basis of previous train-the-trainer instruction by the training services staff, the course instructors were assumed to be qualified to design the DMS Refresher training. They claimed to enjoy being trainers. They also claimed to be experts on the DMS system. The designer/instructors, the director of training, and the researcher then carefully reviewed the *trainer before, during, and after* responsibilities in the model and the checklists and selected several transfer strategies to design into the transfer-group classes.

> _Trainer before._ The designer/instructors carefully read the trainer's checklist and chose to add several transfer strategies to their original design for the DMS Refresher training. They especially wished to develop and use several methods from the checklists for personally involving the participants in more exciting and more memorable training activities. The trainers hoped to increase participant affects and memories of the content by highlighting the learning points more vividly and dramatically. They decided to make the training module on using the telephone support function of the data management area (the Help Desk) more interesting. The trainers also decided to redesign two sets of training handouts and to color-code them so they could be used as job aids after training and would be easier to find on a desk when the need arose on the job. The director of security planned to use a new way to teach

participants about the importance of taking care when using the DMS.

Trainer during. The trainers used the training checklist to change their views about how training ought to be delivered. They decided to add fun and excitement to the training and in general to make the training, to use their words, "less boring." For example, to introduce the function of the Help Desk, they planned to ask a volunteer participant in the first transfer class to help them dramatize the training. With the theme music from Ghostbuster coming from a tape recorder, the volunteer would make a grand entrance into the classroom, his sandwich boards shouting the telephone number and why and when to call the Help Desk. (Regrettably, the trainers could not talk a participant in the second transfer class to do the same thing, so one of the trainers wore the outfit and made the grand entrance.)

The trainer's checklist reminded the instructors of the need to encourage participants to create memory aids for themselves during the training. They decided to remind participants to take notes and to provide markers for creating colorful stickers to put on work terminals, bulletin boards, or desks. The instructors planned to encourage participants to put the telephone number of the Help Desk on several bright stickers.

The director of security decided to bring to class a gallon-sized glass jar and a pocketful of coins. He thought that he could dramatically emphasize the cost of every key-stroke error on the DMS by dropping 7¢ noisily into the jar every time he made an error. If participants commit errors during skills practice and they, too, would be given coins to drop into the jar. He also decided to bring to class a copy of the security report and demonstrate how the thickness of the report depended on the care that operators took in addressing the data base.

Trainer after. The course designer/instructors had their regular jobs at which they worked most of the time. In fact, their supervisors had very reluctantly released them from their jobs so they might function as DMS trainers. Because most of their duties as trainers were in addition to their regular jobs, the designer/instructors decided not to obligate themselves to heavy follow-up activities after the training. They would leave follow up to the supervisors of the participants. However, they would provide their own work numbers to participants so they could call after the training if they needed additional support.

Event 11. Planning to involve the supervisors of the participants before the training

The director of training and the training services staff examined the *manager before* aspect of the model. In the process, they determined that although the supervisors had responded to the needs assessment survey, the supervisors also ought to be discussing the need for training with each of the participants before he or she would be attending the DMS Refresher training.

Based on the strategies suggested by the *before training* section of the manager's checklist, the director of training held a meeting of the supervisors of all the employees who were registered to attend the transfer groups. During this meeting, the training director emphasized the needs assessment results and the importance of following up to assure that the training transferred to the job. He asked the supervisors to meet with their subordinates to pass along the training information sheet (see Appendix D) and to share their expectations that participants would learn the skills to be taught and would apply the new skills on the job. He also asked the supervisors to create work assignments designed to encourage on-the-job use of the new skills. The supervisors who did not attend this meeting were sent a memorandum conveying the same information and making the same requests (see Appendix D).

Event 12. Planning to involve the supervisors in training follow up

The training services staff showed the researcher a performance evaluation form that they planned to use following the DMS training. They said they had used the form once before but had not experienced much success in getting the supervisors to fill it out. The researcher saw that the statements on the form were not worded in performance language and that the many heavy lines on the page made it appear somewhat formidable. Although such an evaluation form was one of the strategies listed in the *after training* section of the Manager's checklist, the researcher thought that a strategy that had not proved to be effective in the past would probably not be effective in the future. However, she agreed that the form could be used if the language on it were changed to reflect the on-the-job performance objectives to be addressed by the training. The researcher also requested that the form be redesigned to eliminate most of the lines. This was done. (See Appendix D, "Transfer of Training Performance Record.")

Results

Shortly after the last of the transfer classes, the designer/instructors individually thanked the researcher for making their jobs more interesting and fun. Citing the Ghostbuster skit and other details of their new training design, they said that they had never before had so much fun planning and delivering training. Using the model and the checklists had started their creative juices flowing. The participant satisfaction sheets confirmed that the participants in the transfer groups had enjoyed the training. None of the participants in the non-transfer classes stated on their participant satisfaction sheets that they had had fun. Following are the researcher's assessments of the results of introducing the transfer-of-training system into the DMS Refresher training.

Assessing Supervisory Support of DMS Refresher Training

Getting the supervisors to follow up after training with the Performance Record Forms (Appendix D) proved to be a challenge. One month following the training session, when all the Performance Evaluation Forms were due, only three of the expected twenty-five forms had been returned. Follow-up telephone calls yielded the information that some supervisors thought the forms were reasonable, but that "forms alone probably would not cause a positive change in performance on the job." In this they were correct, but these supervisors had apparently failed to note that the forms were a means to record the result of training and supervisory coaching. The fact that imposing the form on the supervisors did not succeed should lead trainers to conclude that a better move might be to educate managers about their responsibility to follow up after training. The training services staff did not share the transfer-of-training model and the manager's checklist with the supervisors. The result might have been different if he had done so and if the supervisors had chosen for themselves the strategies for introducing the training and for following up afterward. As it was, the supervisors apparently did not follow up after training, even when they were specifically asked to do so.

Assessing Transfer to the Job without and with the Transfer-of-Training System

Table 1 lists the mean errors of participants in the four groups, which were recorded in the security file for a month of working days before and a month of working days after the DMS Refresher training. Because the total number of transactions per group were not available, error rates could not be calculated, thus making the error data statistically meaningless. Mean errors per group of participants in the non-transfer groups and in one of the two transfer groups increased after training. These results, which were counter to expectations, suggested to the researcher and the training services staff that something other than training to reduce errors was going on. An examination of the lists of participants in the four groups involved in the study showed that of the twenty-five participants in the two transfer groups, four were supervisors who did not normally use the DMS. This circumstance suggested that at least a few of the participants in the training may not have come to training intending to improve their record of errors on the security file.

Table 1. Participant Errors by Group Per the Violations Report

Group	Mean Errors Before Training	Mean Errors After Training	Change
A1 no transfer	8.85	9.62	+0.77
A2 no transfer	12.29	16.36	+4.07
B1 transfer	26.09	34.08	+7.99
B2 transfer	9.09	7.91	-1.18

Assessing the Results of the DMS Refresher Training

After comparing notes, the director of training, the director of security, and the training services staff reported to the researcher that they had failed to consider the fact that the training had actually been designed to meet two contradicting job performance goals. The first goal was to increase independent use of the DMS without relying on the support of the Help Desk or central files staff. The second goal was to reduce the number of key-stroke errors made by the users of the DMS. Furthermore, several supervisors had requested that they be permitted to attend the training. After training, therefore,

1. Some participants returned to their jobs prepared to use the data base more, not less.
2. Some participants returned to their jobs prepared to be more careful in keyboarding.
3. Four supervisors returned to their jobs better prepared to support their subordinates' use of the DMS.

To add to the difficulty of measuring the results of this training, a computer programmer was a participant in one of the non-transfer classes of the study in order to decide whether or not he wanted to become a trainer for the new data-base system that would be coming on line in the near future. Certainly, such a multiplicity of goals–measurable and unmeasurable and contradictory–seems a lot to ask of any training program, but such is the real world. Relying on the error scores to measure the effectiveness of the transfer-of-training system had proved to be an unrealistic plan.

Assessing Trainer Response to the Transfer-of-Training System

The designer/instructors had chosen two alternatives on the trainer's checklist: (1) getting participant's attention in order to enhance learning and (2) making the training more affective in order to increase retention. In answer to the question: "What was different about training as you did it before and training as you did it after you worked with the transfer-of-training system?" Their immediate response was, "Fun! It was more fun to teach when we were helping people figure out the differences between types of DMS files and screens." One said "It was a thrill to be dramatic." Another said, "I enjoyed creating the color-coded materials, and it made teaching easier." Still another said, "I didn't bore them as much. I was able to get their attention and keep it." It appeared that they had felt amply rewarded by the participants' classroom responses to their new training strategies.

When the director of security brought his huge glass jar into the classroom and set it on the table, evidence that he had aroused participants' curiosity came quickly: "What is that jar doing there?" When the time in his presentation came to show how security violations are inadvertently made, he said he enjoyed noisily tossing the coins into the jar. He told the researcher, "Teaching is a lot more fun when I can be creative about getting people to remember to do things differently back on the job." When asked if he would be using the transfer-of-training system in the future, he replied, "I will do this [use the new techniques] for all refresher courses in the future. Teaching is more exciting when I feel like I am making it interesting and can see that interest on their faces. Making these changes for the transfer groups recharged me as an instructor." It should be noted that the director of security had taught his section of the course nine times before he applied his new techniques to the transfer groups.

Assessing the Usefulness of the Transfer-of-Training System

Was the transfer-of-training system useful? The following questions for assessing the usefulness of a model in a change effort was suggested by Lippitt (1973, p. 346).

> Question #1. Did the transfer-of-training system (in this case, the model and the checklists) help to clarify the training goals? Answer. They helped to clarify only the goal of reducing errors. The process of using the model may have prematurely limited consideration of all the goals that various people had for the DMS Refresher training.
>
> Question #2. Did the system help to put a complex situation into perspective? Answer. It helped the training services staff and the designer/instructors see the complex nature of the organization in which they produced the training. It also helped them see a number of new opportunities for influencing the transfer of training.
>
> Question #3. Did the system help those involved to perceive multiple forces and variables? Answer. The system helped the training services staff realize that they were already taking environmental and organizational forces into account. In addition, the model clarified that carefully timing the use of strategies before, during, and after training could help to increase transfer of training. It also clarified that attention had to be paid to the responsibilities of all three players in all time periods.

Question #4. Did the system show alternatives that had not previously been perceived? Answer. The checklists in particular offered decision makers a rich assortment of alternative strategies. Of the listed alternatives many were acceptable to the trainers in the agency. Unacceptable alternatives were not selected.

Question #5. Did the system demonstrate the interrelationships between multiple factors? Answer. The training services staff saw the relationship between environmental forces and the strategic role of training. The planners and designers of the DMS Refresher training perceived the need to take special care to choose strategies that would not compete or counteract each other.

Question #6. Did the system provide a means of utilizing different languages, concepts, and theories? Answer. The researcher found it easy to use the model and the checklists to communicate with the training staff of the agency, some of whom were relatively unsophisticated in using the language and concepts of the training and development field.

Question #7. Did the system help the trainer "learn how to learn" from one modeling experience to another? Answer. The answer to this question remains to be seen. The training services staff did, however, express a desire to increase their skills in measuring training.

Question #8. Did the system make it possible for the trainers to take different points of view in focusing on the dynamics of the training situation? Answer. The training staff remarked that, for the first time, they saw the fallacy of expecting transfer following training in situations where supervisors did not value the training and where participants would not be asked to use what they had learned on the job.

Question #9. Did the system provide a frame of reference to evaluate progress, success, or failure? Answer. The system made it possible to identify the nature of the particular culture in which DMS training was offered. They identified the lack of supervisor cooperation with the training staff and were able to contrast that lack with the strong supervisory enthusiasm and support for training they had encountered in another part of the agency.

Summary

The researcher and the training services staff counted their working together on this study as an important learning experience. The training staff learned a lot about transfer of training. The researcher learned a lot about using a model in a real-world situation. The next chapter of this dissertation discusses implications and conclusions.

CHAPTER VI

SUMMARY AND CONCLUSIONS

Because training represents large investments of organization resources, trainers and managers alike are concerned that training produce its intended results. A literature search on the topic revealed that training experts have frequently pointed at trainers and managers as the primary sources of participants' failures to transfer the skills and knowledge learned in the training setting to the work setting. Years of blaming individuals for what are systems problems have not improved the situation. Most band-aid solutions to transfer-of-training problems focus on the symptoms of problems, not on their actual causes. In this study, the argument was made that organizations would receive greater benefit from their investments in training if training professionals applied a systems approach to transfer.

The purpose of this study was the development and validation of a systems model to guide the thinking of and the communications between three key players in any training situation—the trainer, the manager, and the participant—during three important time periods—before, during, and after training. The principles of general systems theory, the various steps of a systematic training model, and the best practices of adult education theory were employed to develop a systems model for transfer of training. Three checklists were then developed as aids for applying the transfer model. Special effort was taken to make the checklists conform to the model and to one another. The model and checklists combined constituted the transfer-of-training system.

The transfer-of-training system was submitted to expert review, and it was applied in an ongoing organization. The expert reviewers suggested relatively minor word changes to the model. They also suggested a number of strategies to add to the checklists. All the expert reviewers said that the transfer-of-training system appeared to be a useful tool for solving transfer-of-training issues in organizations. After expert validation, the system was applied in part to a large public-sector organization.

Conclusions

The conclusions are divided into sections that reflect the major activities of the study.

Review of the Literature

Analysis of the review of literature showed that many training experts have taken a narrow or simplistic view of transfer-of-training issues in complex organizations. They often pointed to participants' managers and their lack of follow up after training as the major source of transfer failures. They also often pointed to themselves as a major source of transfer failures. They less frequently pointed to participants as the source of transfer failures. They infrequently pointed to their own failures to take a systems approach or to the fact that the relationships between cause and effect in complex organizations are not always obvious or that they too often train individual workers in an attempt to solve systems problems.

Developing the Model

The process of developing the model disclosed the concept that training is a shared responsibility and that all three key players must communicate throughout the training process. The model provides a structured tool for making sense of the shared responsibilities for transfer of training in complex organizations. Before training, the trainer, the managers, and sometimes the participants must collaborate on carefully defining the training need. During training, the trainer, the managers, and the participants must problem solve to find time to learn and to practice new knowledge and skills. After training, all three key players must focus on applying and reinforcing the use of new knowledge and skills in the work place.

In the course of developing the transfer-of-training model, the researcher concluded that training experts may have inadvertently absolved participants of their critical responsibilities for seeing the need for learning, for attending to the processes of learning, and for applying new knowledge and skills to the job. It appears that participants in training could be asked to assume more responsibilities before and after training. They could be asked to prepare in advance for learning and to evaluate their applications of new knowledge and skills to the job.

Developing the Checklists

Through the process of making the checklists conform to the model and to one another, the researcher concluded that transfer must be pursued as a shared responsibility and that maintaining communications between the key players is essential.

Organization decision makers who are unaccustomed to systems thinking and unaware of the principle of equifinality are likely to make unilateral decisions about training from a small set of alternatives. It appears that organizations would benefit if decision makers worked together with other key players to identify more ways to achieve transfer of training. Unfortunately, training experts have not made it a priority to inform line managers about their responsibilities for working in partnership with training staffs. Rather, training experts have tended to discuss the transfer responsibilities of the trainer, the participant, and the manager as if they were isolated issues. According to systems theory, all three key players involved in a training program must acknowledge and act on their interdependencies in achieving transfer.

Validating the Model and the Checklists

Analysis of the responses of expert reviewers and business managers to the transfer-of-training model showed that they were not surprised by either the form or the content of the model. To these reviewers, the model showed that training operates in a dynamic organizational environment, just as it should. However, the expert reviewers expressed their surprise at the large number of alternatives offered for many of the checklist items. They realized that the greater the number of feasible alternatives, the more likely it was that appropriate transfer strategies would be selected as each player carried out the various responsibilities specified by the transfer model.

Using the System in an Ongoing Organization

Analysis of the process of using the transfer-of-training system in a government agency showed that the agency's training staff were able to utilize the model and the checklists strategies for planning communications with participants and their managers. The goal of their selected communications strategy was to increase transfer. Regrettably, the trainers did not choose to share the complete transfer-of-training system with participants and their managers. Nevertheless, even their limited use of the model resulted in three positive outcomes:

1. They tried out several new training practices
2. They became concerned with participant learning rather than simply focusing on the delivery of training.
3. They expressed renewed interest in evaluating the results of the training they produced.

These outcomes suggest that the professional trainers and the designer/instructors have learned some things from using the system. If these trainers continue to focus on transfer-of-training issues, they and their training efforts are likely to earn the respect of and gain greater cooperation from line managers in the agency.

Recommendations for Practice

The transfer-of-training model is an abstraction of an ideal training situation. It provides a structured way to look at selected features of a training situation within the context of the organization and its business environment. The model can be used as a tool for making sense of the interrelationships between key players in a dynamic system, especially those that will affect transfer. The hope is that by using the model to ground decision making and the checklists to facilitate communications among the key players the probability of transfer-of-training will increase. A cautionary note is in order: The model and the checklists claim limited domains of applicability. The transfer system must not be stretched to cover training situations that it does not fit.

- The model and the checklists presume that a measurable change in performance on the job is the goal of training. In well-managed organizations, most important work behaviors or the results of them are measured. Given a training situation where on-the-job performance or the results of that performance will not be measured, the trainer is advised to apply some other training model, such as Instructional Systems Design.
- Trainers should keep in mind that the basic values of the organization, and of the groups or individuals who use the transfer-of-training system, will inevitably influence how the system is applied. The system can be applied where individuals or groups of employees are not held accountable

for meeting performance standards (e.g., hiring the disadvantaged or maintaining full employment in an economic downturn); however, in such situations the key players will not be expected to carry out their training responsibilities to the full extent of the model, and transfer after training may be limited.

- The model can be appropriately used to influence either short-term or long-term transfer. Given a goal of transfer in the short term, changes in performance could be easily noted and measured, and training could be assigned a significant portion of the credit for any measurable increase in performance. Given a goal of transfer in the long term, however, at least three requirements must be met: Communications about performance expectations will need to be ongoing, patience in seeking measurable results will be needed, and training could be assigned a limited portion of the credit when positive changes in performance result.
- The transfer-of-training checklists do not spell out every possible alternative transfer strategy, and key players cannot expect to select the very best strategy. Rather, use of the checklists is expected to yield an increased probability that key players will find and select effective strategies.
- The transfer-of-training checklists are long. They could be tailored to fit a specific training situation. On the other hand, the sheer length of each checklist serves to communicate the importance of transfer strategies to each of the key players.

Sharing their checklist responses with one another could aid communication and commitment to effect transfer.

- Users of the graphic model should be made aware of a concern expressed by one instructional designer who reviewed the transfer-of-training system. She pointed out that the graphic model (see Figure 4) could mislead trainers and others into thinking that the time and effort needed to implement role responsibilities in the nine cells were equal. They are not. The time, energy, and talent required of key players to fulfill the responsibilities of their cells will vary widely.

In summary, the transfer-of-training system can be used to clarify the interrelationships among the key players. The model can be used to help training decision makers visualize the transfer situation and to encourage key players to accept their individual responsibilities for transfer. The checklists can be used to facilitate communications among the key players and to educate and support individual key players as they select and carry out appropriate transfer strategies.

Recommendations for Further Research

The combined model and checklists is designed to be applied to decision making and action taking in many training situations. These two transfer tools could be used to satisfy decision makers' needs for theoretical input as they explore new possibilities for improving the practice of training in their organizations. Given the caveat that the transfer-of-training system was developed for use with performance-based training, research designed to answer the following questions might be particularly valuable to trainers and decision makers in business and nonprofit organizations:

- What is the effect of using the model and the checklists (complete or abbreviated) to increase communication about transfer among all three players?
- Are some of the transfer strategies more powerful than others?
- Are any of the nine cells of the transfer model more crucial than the others?
- When the key players freely choose among the strategies, do they then make certain that their chosen strategies effect transfer?
- Will simply teaching organization members how to use the model and the checklists to communicate about training affect transfer across many different organization training activities?
- After a training event when the hoped-for transfer has not occurred, can the transfer-of-training system be used as a diagnostic tool for determining the cause of the problem and for selecting an appropriate solution?
- Will certain corporate cultures defeat even the most determined efforts to apply the transfer-of-training system?
- Does use of the model lead to the application of too many transfer strategies in a training situation–to inefficiencies?

- Can both providers and purchasers of external training use the transfer-of-training system as a tool to facilitate their working in partnership to achieve transfer?

Increasing the returns on investments in training by enhancing transfer of new knowledge and skills to the job is a worthwhile goal. Tools such as the transfer-of-training system may yield significant benefits for individual participants, their managers, and their organizations. More research on the transfer-of-training system is needed to assure these ends.

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APPENDICES

APPENDIX A

INTERVIEW PROTOCOL FOR VALIDATING THE TRANSFER-OF-TRAINING SYSTEM

Proceed conversationally.

1. State the Purpose of the meeting.

Say: The purpose of this meeting is to ask you to assist in reviewing several documents to be used in a study of transfer of training. Are you willing to spend some time in reviewing the appropriateness and completeness of a conceptual framework and a series of three detailed checklists?

2. Begin with definitions.

Ask: When you think of *training* versus education what comes to mind?

Say: Here is a sheet with three definitions of training. Please read them and identify which one is most like your definition. (This step may not be needed if the reviewer has already clearly defined training.)

Definitions of Training

- Training is a systematic and intentional process of altering the behavior of organizational members in a direction which contributes to organizational effectiveness (Hinrichs, 1983, p. 832).
- Wexley & Baldwin in their 1986 review of training stated that "management training differs from management education in that training covers those activities designed to impart specific managerial skills (e.g., time management, delegation) which would be immediately applicable in a particular organizational setting. Training may also focus on a manager's level of self-awareness and motivation" (p. 280).
- Yoder (1977), on the other hand, defines training as the "facilitation of learning" (p. 55). He emphasized the facilitation of learning because all development is essentially self-development, which may be enhanced through expert facilitation that allows active practice and feedback on performance (reinforcement).

3. When you think of *transfer of training* what comes to mind?

Say: On this sheet are three definitions of transfer of training. Which one appears to be most like yours? (This sheet may not be necessary if the reviewer has already defined transfer of training in conversation.)

Definitions of transfer of training

- Skills transfer: The effective, on-the-job application of skills and knowledge acquired during a learning activity. (Robinson & Robinson, 1985, p. 82).
- Transfer of training is "the effects of training on the subsequent performance of an operational task" (Zemke & Gunkler, 1985, p. 49).
- Transfer of training is the process of generalizing from what behaviors are effective in the training setting to what behaviors are effective in the real-world setting (Miller, 1976).

4. Conversationally present a copy of the empty-celled transfer-of-training model (see Figure 3 in Chapter III).

Say: "This is a model of the responsibilities of various key players involved in training.

Ask: Does this time line, which suggests that the players have responsibilities for transfer of training before, during, and after training, make sense to you?

Ask: Do the roles on the vertical axis make sense?

Ask: Does putting the roles axis and the times axis together make sense?

Ask: According to the framework, the key players must function in a organization that is changing probably due to forces in the environment. Does this conceptual framework graphically reflect how the environment ultimately impinges on the roles and responsibilities of the players?

Ask: Do you see the communication arrows between the players in each of the time periods? Do they represent an accurate picture of the appropriate communications between these key players in an ideal company? Do managers communicate with participants during training in your company? Should they?

5. Present a copy of the full framework with all nine cells filled in.

Say: Let's read the responsibility statements in each of the cells to see if they make sense to you

Read horizontally through one role emphasizing the responsibilities in each of the time periods.

Ask: Do the responsibilities of the player (trainer, participants, or supervisors) in this row make sense?

Say: Please look over the remaining role responsibilities.

Ask: Can you think of a responsibility that I have left out or put in the wrong place?

6. Talk about the idea of shared responsibilities for transfer of training.

Say: This conceptual framework is based on the expectation that to the extent that people fulfill their responsibilities, the training will transfer to the job and work performance will be improved.

Ask: Do you agree with this statement?: "If someone does not fulfill his or her responsibilities, then the training probably will not transfer well to the work place."

Ask: Let's see; what would happen if one of the players did not meet his or her responsibilities during one of the time periods? (Pick a cell and discuss whether or not transfer would occur if the responsibilities in that cell were carried out poorly or not at all.)

Say: Thank you, I appreciate your careful consideration of the graphic. Now, are you willing to take a look at the three checklists.

7. Conversationally present the checklists.

Say: There are three checklists, one for each player. Each of the checklists covers things to do during each of the time periods, before, during, and after the training program.

Say: Choose first for discussion the checklist that best fits the expert's occupational role.

Say: Please note that the responsibility statements in the boxes on this checklist are the same as the statements in the boxes for this role in the framework.

Say: The checklists are intended to be used for choosing appropriate strategies for encouraging transfer. The trainer's/manager's/participant's checklist provides alternative strategies for the trainer's consideration when he or she is planning a training program that will transfer.

Say: Look again at the information in the box called "Before the training program." Does the responsibility statement in the box duplicate the statement in the same time period on the framework?

8. Now check the appropriateness and completeness of the transfer-of-training strategies that fall under the box.

Say: Let's see if these alternative activities under the "before training" cell for this player are appropriate and complete.

Say: For purposes of reviewing the specific items in the checklist, will you set in your mind a hypothetical training program? (The interviewer allows the interviewee time to think and then asks "Will you share the program you have in mind?")

Ask: Will you choose some appropriate transfer strategies for this role and for your program in this time period?

Say: Now, in this role, please check some appropriate items on the checklist according to the program you have in mind..

Ask: Would you like to alter any part of this checklist? Remove an item? Add an item? Change an item? Please read it carefully

9. Present the remaining checklists.

Ask: You do you think a trainer could use these checklists as a means to facilitate communication about responsibilities for transfer of training among the key players?

10. Thank the interviewee for his or her attention to the details of the model and helpful changes to it.

APPENDIX B

CHANGES SUGGESTED BY THE EXPERT REVIEWERS

James Peterson's suggestions:

The participant's checklist. Some of the changes Peterson suggested for the participant's checklist were as follows:

During the program

- Remove item #3 on the grounds that the learning methods participants prefer ought to be based on what they are learning.
- Move item #5 to the "after training" period.
- Add an item about how responsibility for learning is divided (now located only in the trainer's checklist).

After the Program

- Eliminate "monetary incentive" from item #6 because monetary incentives are rarely applied to training.

The trainer's checklist. Peterson found the trainer's checklist to be somewhat intimidating because of the large number of alternative strategies, but he said he believed that trainers who were serious about transfer of training would be willing to study the trainer's checklist before choosing appropriate strategies to facilitate transfer.

Before the program

- Add "personal desire to do the job better" as an option for item #9 "What will motivate participant(s) to learn?"

During the program

- Remove "share performance test scores" from Item #2 of the during training section of the trainer's checklist because most participants would not want to share their actual test scores with their superiors.

After the program

- To honor reality and help structure evaluation, add an item on short-term evaluation
- From "Evaluate organization results," remove "Count the number of innovations that could be attributed to the training."

The manager's checklist. Peterson made several suggestions for this checklist.

During the program

- Add a "Don't know" response to item #1 about hours to commit to the training.

After the program

- In item #2, keep the response "delegating coaching to another" even though managers should never delegate coaching to someone else
- Remove "provide monetary incentives" from item #4 because most managers don't often have the power to change monetary incentives.

- Add "performance appraisal" to item #6 as an appropriate opportunity to provide feedback to the participant.

Ms. Susan Stanek's suggestions:

The participant's checklist. Some of the improvements Ms. Stanek suggested for the participant's checklist were as follows:

Before the program

- Add to item #2, "Did you participate in defining either the need or the content for this training?" the alternative response, "No, this is an ongoing program."
- Add to item #3, "Which of the following performance goals does this training program address?" more explanatory language, such as "To take advantage of a business opportunity" or "To solve a business problem."
- Add to item #5, "How will you prepare for this training?" the alternative response, "Have completed the first phase of the program."
- Change item #6, "How important is this training to your job?" to "How important is this training to you?"

During the program

- Add to item #2, "Are you confident about participating in a collaborative learning experience with others?" the alternative response "Not a group training experience."
- Edit item #3 as follows: Which of the following learning methods ~~are you comfortable with~~ *do you prefer?"*

- Edit item #4 as follows: "If this training runs for more than one session, will you be reporting your progress *in the course* to your manager?" (Add italicized words)
- Edit item #5 as follows: If you ~~don't feel comfortable~~ *are not satisfied* with this training experience, what will you do?" and add the word *nothing* to the response "Learning is sometimes uncomfortable." Also add "Other" to the alternative responses in this item.

After the program

- Add "Other" as an alternative response to item #4, "Who will support your using your new skills on the job?"
- Change item #7, "How will you evaluate this training?" to "How do you plan to evaluate this training?"

The trainer's checklist.

Before the program

- Change item #15 as follows: "How will ~~the trainer~~ *you* prepare for this training?"
- Change item #19 as follows: "List any prerequisites that participants may not be able to meet and what will be done *if they don't.*"

During the program

- Reverse the order of items #2 and #3.
- Add an "Other" response to the new item #2

The manager's checklist. Ms. Stanek suggested the following changes:

Before the program

- Change item #2 as follows: "Describe specifically what you want the participant(s) to be able to do *or do better* ~~that they cannot or do not do now~~?
- Change item #3 to read "What organizational support will ensure that the participant is held accountable for using new skills and knowledge on the job?" and add a "None" to the possible responses.

During the program

- Add to item #3 *If the training goes for more than one session,* will you check with the trainer on the progress of participant(s) between sessions?

After the program

- Add to one of the responses to item #7 as follows *support*/action group.

Robert Schoeneberger's suggestions:

The participant's checklist. Schoeneberger suggested making the following changes in the participant's checklist:

Before the program

- To item #3 add an "Other" response.
- To item #5 change the response "Complete the reading assignment" to "Complete any assigned readings."
- To item #8 add a "Don't know" response.

- After item #10 add a new item #11 "Are there any other concerns that you have about attending the program that you would like us to know?

During the program.

- From item #1 remove the word "my."
- Change a response in item #4 from the negative-sounding "Complain to the other participants" to "*Discuss it with* the other participants."

After the program

- Change one of the responses in item #1 to read "Yes, I *will* brief..."
- Reverse the order of items #6 and #7.
- Add *(Optional)* to item #8.

Trainer's Checklist. Schoeneberger suggested making the following changes in the trainer's checklist:

Before the program

- Add an "Other" response to item #3.
- To item #5 change *achievement* in one of the responses to *progress.*
- To item #6 add a "Don't know" response.
- In item #7 change adapt to *modify.*
- Change item #12 to "How will you inform the participants and their managers of the ~~need to commit~~ *reasons for committing* time and effort to this training?

During the program

- In item #5 make the following changes:

"Encourage action planning ~~to apply the new skills on the job~~" and "Encourage participants to form follow-up groups.

After the program

- To item response for #2 add "*Repeat or* delay the administration of satisfaction sheets until a month or more has elapsed.
- To item #3 add an "Other" alternative.

Manager's checklist. Schoeneberger suggested making the following changes to the manager's checklist.

Before the program

- To item #1 add "Other" to the responses.
- To item #4, response "A brief discussion..." add the words *why this training is important.*

After the program

- Move item #4 to the #6 spot.
- Put the need to give feedback in a separate item.
- Delete the word additional in the new item #4 "What ~~additional~~ support will you provide to the participant(s)?"

Roger Miller's suggestions:

The participant's checklist. Miller suggested the following changes to the participant's checklist:

During the program

- Change the wording in Item #2 to eliminate "collaborative learning experiences with others" to something that would be more easily understood.

- In Item #5, one response does not seem to fit the question.
- In Item #7, substitute "carry out" for the word "manage," which may be perceived as improbable or emotional.

After the training

- In Item #6, change "feedback" to "informal face-to-face feedback."
- Add "refer to the use of new skills and knowledge during performance appraisal."

The trainer's checklist. Miller suggested the following changes to the trainer's checklist:

Before the program

- Item #3, no change but a caution to remember that a single participant may have more than one manager.
- In Item #1 the phrase "managerial capability" should be changed to "trainee capability."
- In Item #10, ask trainee's about their "awareness" of the need for training.

The manager's checklist. Miller suggested the following changes in the manager's checklist:

Before the program

- Change item #7 from "what will take priority over..." to "what would preempt..."

During the program

- In Item #6, change the ~~tolerate~~ to accept to make it more positive.

- Add "informal face-to-face appraisal and documentation to Item #9.

The professional group's suggestions:

The participant's checklist. The NSPI members suggested the following additions to the participant's checklist:

Before the program

- If needed, inquire further about the training program.
- Inform the trainer of my special needs, such as fully accessible facility or vegetarian meals.

During the program

- Attend to my needs for sleep, exercise, and nutrition.
- During the session request clarification and additional examples when I need them.

After the program

- Review my learning contract.
- If available, review a videotape of my in-class performance.
- Participate in a focus group discussion to evaluate the program.

Trainer's checklist. The NSPI members suggested the following additions to the trainer's checklist:

Before the program

- Ask manager to give participants practical application assignment.
- Become acquainted with the participants and ask about their work situations and how they will apply the new learning.

- Ask participants to fill out and return a checklist of prerequisites.
- Hold a pretraining session for participants who have questions about the training and their ability to participate.
- Test participants to determine skill or preparation level.

During the program

- Inform participants that those who do not apply, or do not need to apply, themselves to the learning will be sent away early.
- Trainer is fully prepared to deliver the training as it was designed and developed.
- Discuss the "when," "who," and "why" of content application (not just the "how").
- Require a final application project and report of results.

After the program

- Give feedback on final application report.
- Schedule "brown bag" discussion groups to discuss what is working well and what is causing difficulties.
- Evaluate training via a teleconference with participants' managers.
- Revise training as needed before rerunning the program.

Manager's checklist. The NSPI members suggested the following additions to the manager's checklist:

Before the program

- Check and give feedback on participants' pre-assignments.

- Inform the trainer of special needs or characteristics of participants that could affect training.

During the program

- Arrange to cover the work responsibilities of the participant while he or she participates in training.
- If possible, restate my expectations for learning and performance.
- Ask trainer for progress report on participants.
- Ask participants for progress report.

After the program

- Allow time and opportunities to practice new skills.
- Provide performance data in verbal and chart forms.
- Acknowledge examples of the use of the new skills on the job and their effects.
- Participate in a training impact assessment meeting.

APPENDIX C

TRANSFER-OF-TRAINING CHECKLISTS

Trainer's Checklist for Transfer of Training

Trainer name ______________________________ Date __________
Name of the training program ______________________________
Program Dates ______________________________ Location __________
Participants' managers ______________________________

Directions: Fill out only one checklist per program. Check one, none, or all the responses that apply to this training program or write the answer in the space provided. Where you have checked "other," please specify. Write longer answers or comments in the space provided and in the margins.

Before the training program, the trainer validates the need for training to achieve organizational or individual goals; submits a proposal to management; analyzes specific work behavior and learner characteristics; and designs training.

Validating the need

1. What analysis method(s) was employed to discover this need for trainiong?
___Organization mapping
___System flow chart
___Job analysis
___Task analysis
___Other ______________

2. How important is this training to this organization at this time?
___A highly visible event
___A costly problem will be eliminated
___Cost-benefit forecast is significant
___Estimate of return on investment is high
___Goals for the future require new, more competent people
___Other ______________

3. Which of the following performance goals of the individual participant or the organization does this training address?
___Organization mission, strategy, or goal
___Business problem
___Business opportunity
___Participants' career development strategy
___Succession planning
___Other ______________

4. How will the manager(s)of participants support this training?
___Participate in the needs assessment
___Allocate resources for the training
___Participate in the design of training
___Attend a preview session
___Nominate appropriate participants
___Agree to visit or present at the session
___Allow time on the job for training
___Provide staff support for completing assignments
___Provide follow-up coaching
___Reward skilled performance on the job
___Provide details of critical incidents or cases to use in the training
___Other ______________

5. What specifically does the manager want the participants to be able to do that they cannot or do not do now? Attach a list of the major behavioral objectives (stated in job-related terms)

6. Besides this training, what organization changes will be made to assure that the new skills and knowledge will be used on the job? Changes will be made in the
___Performance monitoring and feedback system
___Reward system
___Succession system
___Performance appraisal system
___Work methods
___Resources allocated to the job
___Formal recognition system
___Other ______________
___No changes will be made

7. At what organization level is this training directed?
___Support and clerical staff
___Operators
___Assembly
___Technical
___Professional
___Presupervisory and supervisory
___Middle management
___Senior management
___Executives
___Other_______________
___Not directed to a particular level

8. Are the behaviors, models, and language taught in this training generally accepted in this organization?
___Yes, they fit the culture
___No, they are aimed at culture change
___Yes, the model and behaviors taught are consistent with other or previous training
___No, they are aimed at changing current interpersonal/leadership/management style
___Not sure

Selection of participants

9. How will participants be selected for this training?
___Entire work team, including manager so skills may be mutually reinforced
___Entire work team, excluding manager
___Individuals identified in a needs assessment
___All persons in a particular job classification
___Only persons in a particular job
___Enough participants from one area or job classification to form a critical mass
___By manager on basis of perceived need
___By score on assessment instrument
___By unit training advisory group
___Opinion-leader participants draw others into the course
___Self-selection
___Identified by succession planning

10. How has participants' awareness of the need for learning been heightened?
___The business situation requires new knowledge and skills
___Top executive delivers some important elements of the training
___Participants are in line for succession, promotion
___Participants' managers have spelled out performance expectations
___Participants complete learning contracts in exchange for privilege of attending the course
___Manager gives practical application assignment to participant
___Trainer initiates three-way meetings with manager and participants prior to training
___Results of pretest shared with participant
___Participants' self-assessment of need
___Assessment instruments filled out by others showed need
___Other___________________

11. Who should not participate in this training? Persons who
___See no problem or are not ready to explore alternative thinking
___(Whose) value systems run counter to the values being taught
___Do not require these skills for their jobs
___Do not have the prerequisite knowledge or experience
___Have not completed the required preparatory assignment(s)
___Already possess the knowledge or skills being taught
___Resent having to attend this training
___Others_________________

Designing the training

12. What training philosophy underlies the design of this training?
___Instructional systems design
___Other systematic method
____
___Customized training package
___Generic training package

13. Who was involved in designing this training program?
___The CEO or other top executive
___Strategic planners
___Participants' managers during needs analysis
___Participants' managers suggested changes during a rehearsal session
___Participants
___Participants' subordinates
___Participants' coworkers

14. How was content of program determined?
___Interviews
___Focus groups
___Critical incidents
___Observation
___Literature search
___Other training materials
___Subject matter expert
___Analysis of organization records
___Management mandate
___Trainer based content on experience
___Other_________________

15. What knowledge, skills, and attitudes will participants need in order to achieve the major behavioral performance objectives?
___If available, attach a list of the major learning objectives found in the lesson plan and check here.

16. How will the trainer prepare for this program?
___Attend a train-the-trainer session
___Read the original needs assessment
___Read and internalize course materials
___Inquire how content is sequenced
___Review information about the participants
___Get acquainted with a representative group of trainees
___Mentally rehearse the learning situation
___Draw upon background in the subject as needed
___Other______________

17. Does the method of instruction match the learning need?
___Complex interpersonal behaviors = behavior modeling, role-playing, and social reinforcement
___Factual information = lecture, video, readings, computer assisted instruction, or self-directed learning
___Complex cognitive knowledge = a cognitive map of the domain
___Decision making = cognitive modeling with sequencing of decision-making tasks from the basics to the desired level of expertise
___Skilled behaviors = increasingly sophisticated forms of practice to the criterion level
___Attitude change = inductive methods, structured experiences with debriefing, simulations, scenario building, or discussion
___Reflective thinking = self-assessment instrument, journal writing, talk to instructor on paper
___Group leadership = practice in leading and participating in small learning groups
___Infrequently used skills = train with job aids
___Other____________________

Registration

18. Have the participants and their managers been informed of the need to commit time and effort to this training?
___Reading assignments
___Filling out forms or instruments
___Identifying specific desirable work behaviors or performance goals to result from training
___Other _________________

19. What materials are to be delivered to the participants and to the participants' managers to help them prepare for the training?
___Program brochure
___List of behavioral objectives
___List of readings and assignments
___Program schedule
___Assessment instrument
___Other_________________

20. What means will be used to assure that participants have the capacity to benefit from the training program?
   ___Spell out prerequisites in resistration materials
   ___Ask participants to fill out and return a prerequisites checklist
   ___Hold a pretraining session for participants who have questions about the training and their ability to do well
   ___Assess levels of skill and experience with the focus, scope, and subject matter of the training
   ___In a series require achievement of previous courses

During the training program, the trainer implements the training and adapts examples, practices, and pacing so participant can relate new knowledge, skills, and attitudes to specific applications on the job.

1. How is the first session used to set the climate for learning?
    ___The context for learning is established
    ___Ground rules are agreed upon
    ___Behavioral objectives are stated
    ___Participants are held responsible for their learning
    ___Course objectives are tailored to the needs of the group if possible
    ___A dramatic discovery exercise opens participants to the learning
    ___Participants are asked to commit to learning the new skills
    ___They are informed that participants who do intend to or do not need to apply themselves to learning may excuse themselves

2. What qualities of the assigned trainer will enhance participants' learning?
    ___Expects participants to learn
    ___Is enthusiastic about the participants and the subject matter
    ___Respects participants and the subject matter
    ___Is a highly skilled trainer
    ___Has educational background on a par with that of participants
    ___Is prepared to implement the training as designed and developed
    ___Is articulate, a good communicator
    ___Knows the turn-ons and turn-offs of this audience
    ___Creates success experiences for learners
    ___Assumes that responsibility for learning is shared by all present.
    ___Uses positive, nonthreatening style
    ___Has no need to be the only expert in the situation, pulls the learning points from the participants
    ___Measures learning according to agreed criteria
    ___Gives timely, specific, accurate feedback in a positive manner
    ___Models the skill(s) being taught
    ___Knows how this training fits with organization, mission, goals, and strategy
    ___Other________________

3. What situational factors will enhance participants' learning?
    ___Program is timed to occur just when participants need the skills
    ___Participants' objectives match the objectives of the training
    ___Participants are seen as prestigious or at least on a par with one another
    ___Number of participants enrolled is sufficient to carry out the exercises and discussions according to the training design
    ___Classroom facilities are comfortable
    ___Participants have completed their precourse assignments
    ___Participants have the prerequisite skills and knowledge
    ___Participants who obviously cannot benefit from the learning are given way to bow out
    ___Training supplies and equipment are on hand and functioning

4. How will the participants receive feedback about their performance in training?
    ___Test scores
    ___Trainer feedback in private
    ___Trainer feedback in the group
    ___Peer feedback
    ___Other ________________

    If available, attach the criteria for feedback.

5. What learning principles are designed into the training to increase learning?

___Ground rules are used to assure participation in psychological safety
___Trainers state why the learning is important to the learner and the organization
___Participants are taught appropriate strategies for learning this type of content
___Data that the participants bring to the training session in the form of assessments or problem sharing is processed
___Participants are taught to discriminate between examples and non-examples
___Participants develop their own checklists for prompting skilled behaviors
___Important content is presented more than one way or one time
___The training experience is designed to be intense, memorable, highly affective
___Participants are urged to think about their thinking on the topic
___Criterion level of skill is reached through practice with feedback
___Overlearning builds confidence for using skilled behaviors on the job
___The probability of error during practice is minimized
___For psychological safety, interpersonal skills practice occurs in small groups/pairs
___Similarities between the training situation and the real world are emphasized
___The training is adapted to individual differences
___Reinforcement by trainer and other participants shapes new behaviors
___Team teaching allows greater opportunities to meet participants' needs in the learning situation
___Pacing is as fast as the participants can handle it, but no faster
___Nearly 100% of in-class time is directed to achieving the learning objectives
___Tests and performance checks are used to motivate learning
___An internal trainer is assigned to the training whenever the external trainer will not be available to the participants after the session

6. What methods are used to increase transfer to the job?

a. Methods that increase participants' perceptions of the program's fit with the job.

___Learning objectives are tied to organizational goals
___Actual critical incidents from the needs assessment are used during training
___The language used in training fits the organization
___If the task is performed by departments/groups/partnerships, participants are taught by departments/groups/partnerships
___The transfer objectives are spelled out
___Training environment simulates job environment
___Many examples are job related
___Distributed training allows time to find on-the-job applications of material being learned

b. Methods that increase participants' perceptions of the importance of the training

___Discuss the "when," "who," and "why" of content application (not just the "how")
___Ask participants to write their job descriptions and show where the training is pertinent to important duties
___Line managers take the trainer role
___Participants identify and analyze their own problems of lack of skills or knowledge and state learning goals
___Participants arrive at training with specific problems to work on
___Small groups work together on members' problems
___Managers' support or feedback is required to complete training assignments
___Need-to-know content is given priority
___Feedback on assignments is prompt

c. Methods that focus participants' attentions on transfer issues

___Participants use a learning journal to record useful ideas, insights, and commitments to apply the training to their work
___Specific applications to the job are discussed
___Final project and report are required
___Barriers to transfer—such as, envious peers, fearful subordinates, managers who don't model the skills, lack of permission to use the skills on the job—are discussed
___Action planning is instituted
___Copies of participants' action plans are sent to their managers
___Participants form action or association groups for mutual support

d. Methods that aid independence in thinking and transfer

___Participants are urged to employ memory systems that will help them retain what they have learned
___To enhance skill in judgment on the job, the trainer does not instantly supply "correct" answers
___Participants are encouraged to develop the learning points in role-play exercises and simulations
___Trainers pair up participants (buddy system) for mutual support during and after training
___Application assignments or projects are followed up by support, sharing, and celebration
___Trainers are accessible in person or by telephone to those participants who encounter unanticipated application problems.
___Trainers provide job aids in the forms of checklists, flow diagrams, and/or worksheets to support infrequently used skills
___Participants create their own job aids
___Self-managed skill retention methods are discussed and practiced
___Relapse-prevention techniques are taught and practiced
___Trainer supplies bibliography or materials for further reading
___Other________________

After the training program, the trainer supports on-the-job use of newly learned knowledge, skills, and attitudes and evaluates the training.

1. How will you follow up the training?

a. Follow up with participants' managers
___Meet with managers to discuss the support participants will need in applying new skills on the job
___Inform managers of specific application assignments
___Urge managers to ask for on-the-job performance of new skills as soon as possible after training.
___Coach managers on how to support participants in the use of new skills on the job
___Provide managers with step-by-step performance checklists to use when evaluating participants' skilled job performance
___Brainstorm with managers ways to provide recognition for improved job performance
___Supply certificates of achievement for managers to hand out when they see participants using the new learning on the job.

b. Work with participants
___Grade or give participants feedback on completed final project and report
___Send them additional job aids, memory joggers, and performance checklists
___Provide follow-up telephone consultation as needed
___Prepare and conduct a follow-up session to review and boost learning
___Meet with participant action groups (support/alumni groups] to confer on successes and problems in applying the new skills on the job
___Schedule "brown bag" or alumni group sessions to discuss application
___Notify participants of additional training opportunities
___As new training material are developed for standard or ongoing training, send them to past participants

c. Work with participants and managers
___Invite participants and managers to a follow-up workshop for project analysis and reporting
___With managers, supervise practice sessions by participants
___Discuss risk taking and how success and failure will be dealt with
___Send training newsletters and other reminders to both to encourage application of new learning; include success stories, instructive text, contests, and case studies or critical incidents sent in by alumni
___Run a contest with many winners to demonstrate and reward use of the new skills
___Publish success stories and reports in the employee's or managers' newsletter

2. How will you evaluate this training--short term?
___Satisfaction sheets filled out by participants
___Satisfaction sheets delayed one month
___Satisfaction sheets filled out by participants' managers
___Teleconference with participants' managers
___Reliable and content-valid knowledge tests at end of training
___Performance tests at end of training
___Administer the pretest as the posttest
___Administer a pre- then post-test
___Audit participants' use of knowledge and skills on the job
___Interview the participants after one month back on the job (will also provide the opportunity for coaching or counseling as needed)
___Trainer uses checklist to evaluate performance on the job
___Will not evaluate in the short term

3. How will you evaluate the transfer of this training to the job--long term (after six months or more)?

——Repeat the original needs assessment
___Resurvey peers.or subordinates
___Check performance-appraisal records
___Diagnose whether individual performance deficiencies after training are caused by problems with the training or the performance environment
___Measure changes in organization results:
    ___Cost-benefit evaluation
    ___Climate survey results
    ___Number of innovations reported
    ___Turnover rates in the participants and their subordinates, if any
    ___Productivity rates
    ___Speed with which positions are filled by succession
    ___Customer satisfaction ratings
    ___Speed of new-product development
    ___Market share
    ___Profitability
    ___Number of employees on the payroll
    ___Other________________
___I will not evaluate in the long term.

4. What will you do if training evaluation shows that the training should be revised?

___Nothing, this is the last time this design will be implemented
___Consult trainer notes and revise training before the next session
___Meet with a representative group of trainees and their managers to discuss improving training design or content.

5. Who cares whether or not this training has transferred to the job, and what information about the effectiveness of this would they prefer to receive?

Name ______________________________

Would like to see in an evaluation report:

Name ______________________________

Would like to see in an evaluation report:

Participant's Checklist for Transfer of Training

Participant ______________________________ Date ________
Name of the training program ______________________________
Program dates ______________________ Location ____________
Participant's manager ______________________________

Directions: Check one, none, or all the responses that apply to this training program or write the answer in the space provided. Where you have checked "other," please specify. Write longer answers or comments in the space provided and in the margins. Send a copy of this checklist to:

Before the training program, the participant recognizes the need to acquire new knowledge, skills, and attitudes to perform effectively on the job and prepares for the training experience.

1 How important is this training to your job?
- ___Essential
- ___Important
- ___Not important
- ___Not sure why I'm attending

2 Have you been informed of the details of the training program such as dates and times, travel and lodging, objectives, readings and assignments, and tests/projects?
- ___Yes
- ___No
- ___I need more information about ______________________

3 Did you participate in defining either the need or the content for this training?
- ___Yes
- ___No
- ___Don't know

4 Which of the following performance goals does this program address?
- ___Organization mission, strategy, goal
- ___Solution to a business problem
- ___Take advantage of a business opportunity
- ___Career development goal
- ___Job performance goal

5 Describe the specific job skill or task you will be able to do or do better as the result of this training.

6 How will you prepare for this training?
- ___Inquire further about the training
- ___Complete the reading assignment
- ___Fill out an assessment questionnaire
- ___Ask others to fill out a questionnaire
- ___With or without my manager, identify a specific performance problem to work on during training.
- ___Complete a learning contract
- ___Inform trainer of special needs, such as fully accessible facility or vegetarian meals
- ___Other__________________

7 How many total hours of learning do you estimate you will need to achieve the learning objectives of this program? Include time for class, study, and project work.
Estimated total hours _______
What portion of this time is company time? ____%
What portion of this time is personal time? ____%

8 What business events could be expected to preempt your attendance in this training or your study schedule?
- ___None—this training is a priority
- ___Previously scheduled event
- ___Requests from other departments
- ___Other____________________

9 What will prevent your full participation in all aspects of this training, including doing outside assignments.
___Job responsibilities
___Home responsibilities
___Nothing; this training is a priority
___Other____________________

10 Do you have the prerequisite skills and experience to be able to take advantage of the learning offered in this program?
___Yes
___No
___Not sure

11 List other training program(s) you have taken in the past five years that seem to be related to the knowledge, skills, and attitudes to be learned in this program.

During the training program, the participant applies aptitudes, motivation, and specific preparation to learning the content and plans to use new knowledge, skills, and attitudes on the job.

1. Who cares whether or not you learn the knowledge, skills, and attitudes presented in this training program?
___I do
___Upper management
___Immediate manager
___Participants
___Peers
___Subordinates
___Customers
___Other____________________

2. Are you confident about participating in this program?
___Very much
___Somewhat
___Not at all
___Don't know

3. Which of the following learning methods do you prefer?
___Lecture
___Discussion
___Hands on
___Note taking
___Computer simulation
___Individual projects
___Group projects
___Reading assignments
___Writing assignments
___Role plays
___All of the above
___Other__________________.

4. If this training extends for several sessions, will you report your progress to your manager?
___Yes
___No
___Not sure.

5. If you don't feel you are learning during this program, what will you do?
___Talk to the instructor
___Talk to my manager
___Other___________________

6. How will you divide the responsibility for your learning in this session? (Note: Your responses should add up to 100%)
My responsibility = ____%
Instructor's responsibility = ____%
Manager's responsibility = ____%
Other _______________ = ____%

7. How do you plan to carry out your part of the responsibility for learning?
___Prepare by completing the advance assignment(s)
___Attend to my needs for sleep, exercise, and nutrition
___Give my full attention to the learning during the session
___Request clarification and additional examples as needed
___Relate what I am learning to a specific project, my work responsibilities or to my goal for increased effectiveness
___Practice new skills enough to feel confident about applying them on the job
___Take risks and try out new behaviors
___Participate in role-plays
___Ask trainer for feedback on practice efforts
___Ask other participants for feedback
___Complete the assignments
___Participate in class and small-group discussions
___Learn from the other participants
___Find and remember the "big idea" that will make the program worthwhile in terms of my job performance
___Mentally rehearse how I will use my new knowledge and skills on the job
___Complete an action plan
___Keep a learning journal
___Prepare to teach what I am learning to others
___Take good notes or tape record the presentations so I can review the content

8. How do you expect your manager to support your learning during this training program?
___Free me from worry about work while I attend the program
___Provide time to do the assignments
___Provide company resources and support staff as needed
___Provide advice and counsel

After the training program, the participant applies new knowledge, skills, and attitudes to achieve job performance objectives and evaluates the training the impact of new skills on the jobtraining.

1. How will you remember what you have learned?
___Review my learning contract
___Practice new skills on the job
___Stop to think before acting at work
___Review my action plan
___Review a videotape or audiotape of in-class performance
___Review class notes or learning journal
___Reread text and handouts
___Post a checklist or other reminder where I can see it
___Set up a meeting with a "buddy" to review the matherial or practice the skills

2. Are you expected to brief others about what you have learned and how it relates to the job or to the needs of the organization?
___Yes, I expect to brief my
___peers___boss___subordinates
___other___________________
___No.
___Don't know

3. How soon after training will you be using your new knowledge and skills on the job?
___Immediately
___After a week or so
___After a month or more
___Don't know

4..Will job pressures after training make it difficult for you to apply on the job what you have learned?
___Yes
___No
___Don't know.

5. Who will support your using the new skills on the job?
___Manager
___Subordinates
___Action group
___Trainer
___Other________________
___None
___Don't know

6. Have you scheduled a follow-up meeting with your manager or with the trainer to share your action plan or discuss your application of new knowledge, skills, and attitudes on the job?
___Yes, date, place, time:

____
___No

7. What rewards do you expect to receive for successfully applying your new knowledge, skills, and attitudes on the job?
___Informal positive feedback from my supervisor or manager
___Formal documentation and recognition of my achievement
___A reference to my improved performance on my appraisal record
___A plaque or certificate
___Recommendation for a bonus or salary increase
___The offer of a more challenging assignment
___The offer of a more desirable assignment
___Other________________

8. How will you evaluate this training?
___Fill out the evaluation sheet at the end
___Participate in a focus group discussion
___Note positive changes in my performance on the job
___Ask my manager for feedback on my job performance after training
___Ask others if they see any changes in my performance
___Check my record of accomplishment before and after training.

9. Sometimes training is off the mark. What will you do if—

You have not learned through this training program what you expected to learn?

Either the company systems or culture does not permit you to use your new knowledge and skills?

Your manager does not encourage you to use your new knowledge and skills?

You receive little or no helpful feedback from others or from company records after you use the your new knowledge and skills?

You lack confidence in using your new knowledge and skills on the job?

Manager's Checklist for Transfer of Training

Manager's name and title ________________________ Date____________
Name of the training program ________________________________
Program dates ________________________ Location ____________
Participant name(s) and title(s) (See attached list) ____________________

Directions: Check one, none, or all the responses that apply to this training program or write the answer in the space provided. Where you have checked "other," please specify. Write longer answers or comments in the space provided and in the margins. *Send a copy of this checklist to:*

Before the training program, managers define organization mission and strategy. They set performance goals, assess training needs, and approve proposals for specific training.

1. How important is this training at this time?

To the organization	To the participants
___Essential	___Essential
___Important	___Important
___Not important	___Not important
___Not sure	___Not sure

2. What information do you have to assist you in preparing the participants for this training?
   - ___Attended the same training program
   - ___Attended an orientation session
   - ___Program schedule, including dates, travel, meals, lodging, and costs.
   - ___List of learning objectives
   - ___List of prerequisites trainees must have
   - ___List of readings and assignments
   - ___Assessment instruments to fill out
   - ___Results of previously administered assessment instruments
   - ___A brief description of the type of work problem to assign to the participants for this training
   - ___Other__________________

3. How do you divide the responsibility for assessing the need for training? (Note: Your responses should add to 100%)
   My responsibility = ____%
   Trainees' responsibility = ____%
   Trainer's responsibility = ____%
   Other ____________ = ____%

4. Did you participate in defining either the performance need or the content for this training?
   - ___Yes
   - ___No
   - ___Don't know
   - ___No, this is an ongoing program

5. Do participants have the prerequisites?
   - ___Yes
   - ___No
   - ___Don't know

6. Which of the following does this program address?
   - ___Organization mission, strategy, or goal
   - ___Solution to a business problem
   - ___Response to a business opportunity
   - ___Specific job performance goal
   - ___Assessment center recommendations to participants
   - ___Skills required for participants' next positions
   - ___Participants' personal need to do present job better
   - ___Participants' personal career development plans
   - ___Other__________________

7. Describe specifically what you want the participants to be able to do or to do better after this training.

8. How will you inform the participants of the need to prepare for this training experience?
   - ___An in-depth discussion of the training objectives and the new job behaviors and organization results that are expected following the training
   - ___A brief discussion of the reason for attending this training
   - ___A motivational letter to participants
   - ___Review completed preassignments
   - ___None
   - ___Other____________________

9. What could preempt participants' attendance in training or completing the the study schedule?
   ___Nothing, this training is a priority
   ___Not work responsibilities. We have arranged to cover these while participant prepares for and participates in training
   ___Job responsibilities may arrise, specifically ___________________
   ___Other_________________________

During the training program, managers allocate resources to the training, including giving trainees time to master the content. Sometimes managers take the instructor role.

1. How many total hours of learning do you estimate the participants will need to achieve the learning objectives of the program? Include time for class, study, and project work.
   I estimate the total hours will be ______
   What portion of this time will require company time? _____%
   What portion of this time will require personal time? _____%.
   ___Don't know

2. How will you support trainees' learning during this training program?
   ___Allow time at work to complete assignments
   ___Cover unexpected work demands
   ___Provide supplies and equipment as needed
   ___Provide support staff time as needed
   ___Restate performance expectations
   ___Offer advice and counsel as needed
   ___Ask trainer for progress reports on participants
   ___Ask participants for progress report
   ___Other______________________

3. How will you divide the responsibility for trainees' learning in this training? (Note: Your responses should add to 100%)
   Trainees' responsibility = ____%
   Instructor's responsibility= ____%
   My responsibility = ____%
   Other _____________ = ____%

4. If this training requires several sessions to complete, will you inquire about trainees' progress?

With trainees?	With trainer?
___Yes	___Yes
___No	___No
___Not sure	___Not sure

5. How will you be involved in the training session(s)?
   ___Lead all or part of the session
   ___Personally visit the session(s)
   ___Send a statement of positive support to participants
   ___Other ________________
   ___I will not be involved.

6. If you are not satisfied with some aspect of this training program, what will you do?
   ___Talk to the trainer/instructor
   ___Discuss the problem with other managers
   ___Nothing, training is sometimes hard to judge until some time has passed
   ___Other ____________________

After the training program, managers provide feedback on job performance; support, coach, and reward trainees' use of new knowledge, skills, and attitudes on the job; and evaluate the training.

1. How will you divide the responsibility for trainees' applying new knowledge and skills on the job? (Note: Your responses should add to 100%)
   Trainees' responsibility = ____%
   Instructor's responsibility= ____%
   My responsibility = ____%
   Other ____________ = ____%

2. Will you schedule a follow-up meeting with the participants to discuss the application of new knowledge, skills, and attitudes on the job?
   ___Yes, date:__________________
   ___No

3. Will participants brief others about the learning and how it relates to the job or to the needs of the organization?
   ___Yes, participants will brief:
   __peers__manager__subordinates
   __other__________________
   ___No.
   ___Don't know.

4. How soon after training will participants be using the new skills or new way of thinking on the job?
   ___Immediately
   ___After a week or so
   ___After a month or more
   ___Don't know.

5..Will job pressures after training make it difficult for the participants to apply new learning on the job ?
   ___Yes,
   specifically________________
   ___No
   ___Don't know

6 Will trainee's peers model and support the expected behaviors at work?
   ___Yes
   ___No
   ___These skills/behaviors are not needed in their work
   ___They need some help with these expected behaviors themselves
   ___I don't know

7. What support and encouragement will you provide for using new learning on the job?
   ___Provide job performance data in written, chart, or verbal form
   ___Provide assignments and opportunities for participants to use new skills on the job
   ___Review and give feedback on the above
   ___Permit mistakes while participants gain skill
   ___Model the behaviors that are taught in the program
   ___In staff meetings cite uses of the new skills on the job and their impacts on organization results
   ___Request a progress report from the participants on the use of new skills
   ___Review with the participants the trainer's report of strengths and weaknesses observed in training (if such a report is available)
   ___Encourage participants to form (or join) an action group
   ___Support advanced training on the subject, if needed
   ___Other__________________

8. Will you coach the participants on how, when, or where to use the newly learned knowledge, skills, and attitudes on the job?
   ___Yes
   ___No
   ___I have delegated this task to another.
   ___I need help with this coaching task.

9. When will you give the participants specific feedback about the use of new skills on the job?
   ___Soon because prompt feedback is important
   ___In three to six months
   ___At performance appraisal time
   ___Other____________________
   ___I need help with this task.

10. What positive benefits will you deliver to the participants after the successful application of new knowledge, skills, and attitudes on the job?
___Informally acknowledge the trainees' improved performance on the job
___Formally appraise and document trainees' improved performance on the job
___Present a plaque or certificate of training
___Offer a more challenging assignment
___Offer a more desirable assignment
___Other________________

11. How will you evaluate this training?
___Observe changes in work behavior
___Review participants' comments on training
___Measure specific job performance before and after training
___Measure organization results before and after the training
___Calculate a cost-benefit analysis
___I do not plan to evaluate this training.
___I need help with evaluation procedures.

12. What, specifically, will you do if—

You find that the participants have not learned what you expected them to learn during this training?

The participants learned new knowledge, skills, or thinking in training but do not seem to be able to apply them on the job?

The participants lack confidence in applying the new learning on the job?

You seem to be unable to offer the participants any helpful feedback after they apply the new learning on the job?

13. How will you recognize trainers for positively impacting job and organization performance?
___Provide one-on-one feedback to trainer
___Provide recognition for trainer during major meeting of company leaders
___Ask trainer to participate in strategic planning for human resource development
___Other__________________

APPENDIX D

TRAINING MEMO TO SUPERVISORS (p. 152),

TRAINING INFORMATION SHEET TO PARTICIPANTS (p. 153),

AND

TRANSFER-OF-TRAINING PERFORMANCE RECORD (p. 154)

Training Services

October 2, 1990

To:

Fr:

Re: DMS Refresher Training

Because you were unable to attend our meeting on the DMS Refresher Training this morning, I am sending you this memo to gain your cooperation on some new techniques we are going to try in the DMS classes next week.

Attached you will find a copy of a memo dated October 2nd. Attached to it is a form to be used to evaluate the transfer of training. Please have a short meeting with the employees who will be attending DMS Refresher Training for both Business and Individual screens next week and give them a copy of that memo. Also, please stress the importance of the training, tell them the objectives of the training which are listed on the evaluation form, advise them to tell the instructors what they expect to get out of the class and most importantly, they should be sure to attend.

After the training, sit down with them and discuss what they learned and what they think they need more information on, and send this feedback if any to Training Services. The evaluation form is self explanatory. Have the students complete the first column after one week indicating how confident they feel about each of the objectives and then complete the second column after one month. You (or their OJT coach) should fill out the last column indicating how you feel the employee has accomplished the objectives. Comment on the bottom of the form about how you think this process went for you.

The last thing we are asking you to do on this is to give the students some work to apply what they learned after they come back from training.

We are attempting through your additional efforts to make our training classes more valuable to you and your employees. We will probably be holding interviews with you and/or your employees after the month is over to see how you think this could be improved, etc. If you have any questions, feel free to call me at

Training Services

October 2, 1990

Dear Participant,

We are looking forward to having you attend the DMS Refresher training next week. The Training classes are very beneficial, not only to the Department from a cost and efficiency standpoint but they are going to make your work a lot easier too. Changes to the Integrated System makes our service to customers more accurate and efficient. Providing you with the necessary training and tools gives you the freedom to serve your customers effectively.

Training Services and the Instructional staff want to be more sensitive and responsive to your needs as participants in our programs. We want to be flexible and innovative in the way we do things. We encourage you in this and all future training programs to come to class with some objectives of your own. What do you want to get out of class? The instructors in DMS Refresher Training will be asking you that question. Please feel free to let them know what you need. In some cases, a shortage of time may affect their ability to satisfy all of your objectives, but they will do the best they can to help you get what you need out of class and when they cannot, they will advise the DMS Training teams that there are additional needs.

We have met with your supervisors so that they are aware of the objectives of this training program and asked them to provide you with some work to help you practice what you learn and some feedback on how you are doing. Information Systems also has a Help Desk available to answer your questions after the training. You will hear more about the Help Desks for Systems and for Security Issues in the class.

Attached to this letter, you will find a Transfer of Training Evaluation Sheet which will be explained to you by your supervisor. You and your supervisor will both be asked to complete this form. This sheet also shows you the objectives of the class. Please review them so you will know what to expect.

The classes will cover both the Individual screens and the Business screens. They are in the Room on the 4th floor and are from 8:30 to 3:30. Please be on time. If you are not sure which date you are to attend, please check with your supervisor.

Sincerely,

TRANSFER OF TRAINING EVALUATION SHEET

DMS Refresher (Individual and Business)

Employee's Name: ____________________ **Training Date:** ________________

Supervisor's Name: ____________________ **Please turn this sheet in to training Services by** __________

OBJECTIVES:	**EMPLOYEE:** AT THE END OF ONE WEEK, I AM ABLE TO:	**EMPLOYEE:** AT THE END OF ONE MONTH, I AM ABLE TO:	**SUPERVISOR:** AT THE END OF ONE MONTH EMPLOYEE IS ABLE TO:
1. Use the DMS system efficiently	Yes __ No __	Yes __ No __	Yes __ No __
2. Demonstrate how to log on/log off	Yes __ No __	Yes __ No.__	Yes __ No __
3. Explain the importance of security	Yes __ No __	Yes __ No.__	Yes __ No __
4. Demonstrate the use of fastpathing to manuever throughout the Integrated System	Yes __ No __	Yes __ No __	Yes __ No __
5. Identify and operate inquiry screens and their components	Yes __ No __	Yes __ No __	Yes __ No __
6. Locate and use the available system references (manuals and help desk)	Yes __ No __	Yes __ No __	Yes __ No __
7. Apply this information to future Integrated System Training	Yes __ No __	Yes __ No __	Yes __ No __

COMMENTS: ____

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